

THE DEVELOPMENT OF NAVAL THOUGHT:

Essays by Herbert Rosinski



Edited with an Introduction by B. Mitchell Simpson III

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ACKNOWLEDGEMENTS

More than 20 years ago Rear Admiral Henry E. Eccles, USN, then recently retired after 30 years of active service, became acquainted with the late Herbert Rosinski, who frequently visited the Naval War College and the Eccles' home in Newport. Admiral Eccles recognized that Rosinski was a scholar *par excellence* who had an encyclopedic knowledge of military and naval history. He also had a depth of understanding and a breadth of vision which could have resulted in his contributions to scholarship being comparable to those of Alfred Thayer Mahan or Sir Julian Corbett. Unfortunately, Rosinski attempted too much and in doing so he never completed his *magnum opus*.

Nevertheless, Admiral Eccles cast himself in the role of a student and he set about deliberately to learn as much as he could from this remarkable man. Rosinski's ideas significantly influenced much of Eccles' own thinking, which culminated in Eccles' book, *Military Concepts and Philosophy*. He also preserved many of Rosinski's papers and letters, which are now in the Naval Historical Collection at the Naval War College. Thanks to the good offices, friendly tutoring and guidance of Admiral Eccles, I was introduced to Herbert Rosinski, albeit posthumously.

I am also indebted to Williams Clowes & Sons, Limited and to the Macmillan Publishing Company for their kind permission to reproduce these essays, and to Frederick H. Hartmann and Michael MccGwire who read the manuscript.

B. Mitchell Simpson III

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EDITOR'S INTRODUCTION

I

The most important questions any nation and its leadership must decide are those of peace and war. The issues involved are momentous. When a decision is made, particularly a decision to go to war, it is usually irrevocable, even though it may later be perceived as erroneous. Therefore, a decision to enter or to leave a war, to make or not to make peace, must be made with the utmost skill and with an awareness of what consequences could possibly and will probably ensue.

Intellectual rigor and a demand for semantic clarity are the best tools public officials and citizens alike can use to understand the consequences of a decision to employ or not to employ armed forces—sea, air and land. While these tools cannot guarantee success, their absence will surely produce failure. They are useful to produce a descriptive military theory which will elucidate the subject, explain where necessary, order data and help to train the minds of military and civilian leaders so they will be better able to grapple with new circumstances and novel situations as they arise. Carl von Clausewitz' *On War*, even though it ignores the maritime aspects of the Napoleonic wars which were the basis for his analysis, is the most thorough and penetrating work on this subject.¹

Not only is the subject of a descriptive military theory huge and complex, but it has received surprisingly little scholarly attention. Frequently studies of particular wars and battles describe quite clearly what happened, and they may argue one position or another, such as what Napoleon or Jellicoe or Eisenhower did right or wrong. Only rarely since Clausewitz wrote has someone attempted to analyze military concepts, military forces and their employment in order to address the underlying question of military theory.²

Even though modern literature in the field has tended to concentrate on such matters as nuclear weapons and revolutionary war, we should not throw up our hands in despair. A small group of writers and analysts

¹The most recent translation is by Michael Howard and Peter Paret, published by the Princeton University Press, Princeton, N.J., 1976. This edition includes excellent articles by Howard, Paret and Bernard Brodie.

²The best work in this area is Henry E. Eccles, *Military Concepts and Philosophy* (New Brunswick: Rutgers University Press, 1965). It is one of the rare books on military theory. Military professionals and scholars ignore it at their peril.

has been concerned over an extended period with military theory in general and its maritime component in particular, with which we are mainly concerned in these essays. At the very minimum this group, in addition to Clausewitz, consists of such well-known authorities as Alfred Thayer Mahan, Sir Julian S. Corbett, and the generally ignored Herbert Rosinski. Starting with Clausewitz, each provided much of the intellectual background upon which his successors drew for their own studies. While concerned with military theory, both Mahan and Corbett were primarily interested in its application to naval and maritime matters. Herbert Rosinski's writings on naval strategy were a logical continuation of that of his forebears, especially Mahan and Corbett. He pursued the subject with diligence.

Born and educated in Germany, Herbert Rosinski left his position on the faculty of the German Naval Staff College in 1936 and fled to England to escape Nazi persecution. After holding a variety of scholarly positions there, he came to the United States in the early 1940s. In the course of the next twenty years he was more or less an itinerant and impecunious scholar. Among other things, he was a member of the Institute for Advanced Studies at Princeton, and a consultant to the Brookings Institution, the Council on Foreign Relations, the Army War College and the Naval War College. His best known published work is *The German Army*, a particularly prescient study, written about 1940. A second edition was published in 1944 and a third edition in 1965. His last work, *Power and Human Destiny*, was published posthumously. It is a philosophical study of the use, function and nature of power in human society.

Rosinski was an untidy scholar. He left voluminous notes and outlines which show he probably intended to write several long treatises on a great variety of strategic questions. He also left a plethora of widely scattered pieces in various journals and collections of scholarly articles. He wrote in both English and German.

Captain Puleston, in his biography of Alfred Thayer Mahan,³ mentions that Herbert Rosinski was working on a book to be called *The Development of Naval Strategy*. This was written shortly before Rosinski published the first of a series of essays in *Brassey's Naval Annual* in 1939. Presumably the series had its genesis in the work for his uncompleted book. These essays have been collected here not only because they are fine analytical studies which illuminate the subject of naval strategy, but also because his insights and observations have stood the test of time. For this reason, they lend credence to Rosinski's arguments, which must be taken seriously by anyone interested in naval

³ Captain W.D. Puleston, USN, *Mahan*. (New Haven: Yale University Press, 1939).

strategy, which, after all, is a portion of the greater structure of military theory.

In these essays Rosinski has identified the essential elements of Mahan's conceptualization of sea power, which is no mean feat since Mahan was more consciously an historian than a philosopher of sea power. Rosinski has melded these concepts with Corbett's elegant exposition and interpretation and he has applied them in two ways. First, he demonstrates their validity in World War II. Second, he presents the best discussion in English of how the German Navy, having failed to achieve command of the sea in World War I, grappled with the fundamental conceptual problem of German naval strategy: what is the objective in naval warfare if command of the sea cannot be achieved? How the Germans dealt with this problem in the inter-war period is particularly instructive for naval strategists who either assume or seek command of the sea for their navies.

The writings of Clausewitz, Mahan, Corbett and Rosinski do not provide a neat and tidy package in which these concepts are worked out and justified. The purpose behind each of their major works is significantly different. Clausewitz was concerned with a philosophical and analytical description of the phenomenon of war, based largely upon his own historical studies and his experiences in the Napoleonic wars. Mahan sought to show how naval action affected events ashore and in doing so, he developed a conceptual framework which retains its validity to this day. Corbett both adopted Clausewitz' principles to naval strategy and elegantly refined the concepts of sea power which underlie naval strategy in a more systematic way than did Mahan.

In particular, the writings of both Mahan and Corbett are a necessary introduction to Rosinski's analysis of sea power, of its theories and of its application before and during World War II. Thus, a proper understanding of Rosinski's work requires a familiarity not only with the general theses of his two principal forebears, but also a recognition of those parts of their writings upon which Rosinski drew for his own. Rosinski wrote for an audience generally familiar with the writings of Alfred Thayer Mahan and Sir Julian Corbett. Unfortunately, in the intervening years these authors have suffered an eclipse of sorts, although there are indications that they are now being rediscovered. For this reason, it is appropriate to say something, however brief, about some of the more essential (if somewhat unfamiliar to modern readers) elements of the concepts espoused by Mahan and discussed by Corbett.

Of the general themes Mahan, Corbett and Rosinski address, four are particularly significant: (1) perceptions of conflict; (2) the importance of the objective; (3) definitions of strategy, tactics and logistics; and (4) the concept of strategy as comprehensive control.

Mahan, Corbett and Rosinski all perceive conflict as ranging along a spectrum from perfect peace and harmony at one end to total war at the other. Most human conflict falls somewhere in between. All three writers are almost exclusively concerned with conflict between states as sovereign political entities. Thus, they tend to ignore intrastate conflict such as urban terrorism, insurrection and civil disobedience, violent or otherwise.

The second theme is that the objective or purpose of armed conflict and its analysis are of primary importance. With Clausewitz, they maintain that the use of military force between states is rational only if it is a means to gain the ends of state policy. Thus war is really a political act. In order for war to achieve the goals of policy, both military and civilian planners must establish a hierarchy of specific objectives. This means they must determine the relative importance of specific objectives and they must rank those objectives accordingly so that the most important are achieved first. Only in this way can the accomplishment of specific objectives result in the achievement of the goals of policy.

States maintain armed forces as a means to achieve the goals of national policy. The national leaders determine when it is either expedient, necessary or unavoidable to employ them. Such goals are usually stated in the most general terms, such as "Win the War," "Contain Communism" or "Peace With Honor." What actually constitutes achievement of these goals requires refinement to a great degree of specificity. In order to make the establishment and achievement of national goals and objectives a rational process, it is necessary to arrange the particulars in a hierarchy according to the importance and immediacy of achievement. The alternative is nothing less than drifting improvisation. Where questions of peace and war are concerned no nation can prudently accept such an alternative course of action.

This necessary refinement of arranging objectives in a hierarchy requires in its turn a close analysis and a deep understanding of what military power is, how it can be best employed, what are the appropriate objects of military power, how military forces should be organized so they can achieve the goals of policy, and the fundamental characteristics, capabilities and limitations of the sea, land and air forces.

As a third theme, Mahan, Corbett and Rosinski realize that not only must strategy, tactics and logistics be defined, but also that they must be clearly distinguished from each other. Their intimate interrelationship must be recognized and then specified in each situation under investigation. In its most elemental sense, strategy is a *plan of action* to use *means* to attain *ends*. These words are terms of art. The significance and complexity of the concepts they represent becomes apparent when necessary elaboration and explanation are provided: The essence of

strategy is an authoritative combination of (1) the identification and analysis of objectives, the achievement of which will produce a desired effect in accordance with policy; (2) the means or power to achieve objectives; and (3) a scheme or plan to use the means ultimately to achieve the effect desired. Tactics is concerned with the immediate employment of force to attain those objectives. Logistics is concerned with the creation, equipment, training and maintenance of armed forces capable of providing the means by which tactics achieves the objectives of strategy. How each one of the three affects the others and is affected by them is a complex process, depending on specific circumstances. Nevertheless, their mutual relationships must be recognized and understood.

The fourth theme is that strategy should be conceived as comprehensive control. What this means is that the object of strategy is not necessarily the destruction of an enemy, although that may be necessary. In more comprehensive terms, the object of strategy is to achieve some form of control over areas and situations in order to produce the desired effects in accordance with the goals of policy.

These themes in the writings of Mahan, Corbett and Rosinski are not simply items of historical or academic interest. They are important today because they represent concepts so embedded in our intellectual framework that at times they become *a priori* assumptions. Often they are accepted quite uncritically, especially when they are well known, and expressed in terms such as sea power and command of the seas. Others of these concepts, equally well established, lack catchy names and have entered less into the mainstream of popular thought: for example, the concept that the object of war is the achievement of a specific political objective, rather than simply the destruction of an enemy's military force.

Because of this diversity in the reception of these concepts, in analyzing and in understanding current and future problems we must take pains to recognize, know and understand more explicitly the intellectual lens through which we view them. More often than we are aware, we in the West, particularly in Anglo-Saxon naval circles, tend to view naval warfare through the lens first developed by Mahan and then refined by Corbett. Rosinski's analyses and insights heighten our awareness of this lens. For these reasons, we turn now to a brief examination of the divergent emphases of these seminal writers on whose work Rosinski so ably built.

II

In his remarkable bestseller, *The Influence of Sea Power Upon History, 1660-1783*, Alfred Thayer Mahan set forth the essentials of his

views both on sea power, and on strategic analysis and theory. Initially, Mahan set out to demonstrate the connections between general history and naval history. He used the Anglo-Dutch Wars of the late seventeenth century and the Anglo-French Wars of the eighteenth century as his examples. Giving only enough general historical background to make the naval events intelligible and relevant to the general course of history, Mahan demonstrated that events afloat did indeed affect events ashore. However, he also recognized that frequently decisive actions occurred as a result of battles on land or of political conditions having little to do with naval or maritime considerations.

Historically the importance of Mahan's book has been his description of the influence that sea power has had on events elsewhere. Recognition of the importance of Mahan's thesis is not necessarily an argument for causation or even a description or definition with any degree of finality of the relationship between sea power and events ashore. It is simply a reminder that the two are connected. In this sense, Mahan succeeded admirably.

However, Mahan did not rest content with this measure of success. He went farther. He very clearly pointed out that sea power used well, even to the point of becoming command of the sea, can increase the range of options available to policy or even provide new ones. Mahan was impressed with how England had grown in wealth and power as a result of gaining sea power and using it to her national advantage. He sharply criticized the French for turning away from the sea to continental concerns to the ultimate detriment of France.

In describing the connection between events ashore and afloat, or the influence of sea power on history, Mahan developed two main themes, one substantive and the other theoretical and analytical. The substantive theme is familiar: Sea power is an indispensable ingredient for national greatness. When properly used, sea power can bring wealth and power. When improperly used or understood, it can bring national decline and a loss of temporal power and greatness. Mahan identified and described in some detail what he considered to be six basic elements of sea power: geographical position, physical conformation, extent of territory, number of population, character of the people, and character of the government. This association of sea power with national greatness is Mahan's theme that had the most impact upon readers of the *Influence of Sea Power Upon History*, which included Theodore Roosevelt and Kaiser Wilhelm II.

The second theme, the theoretical one, is no less important, but it did not spark the imagination of Mahan's more enthusiastic admirers. In truth, it has been generally eclipsed by the more easily understood substantive theme. Stated simply, this second theme recognizes the

overriding importance of the political object that is achieved by naval warfare.

The object is the ultimate effect that sea power will produce when properly used. The object of naval warfare, then, is a function of national interests and national policy. As such, it is an expression of political goals to be achieved by the employment of sea power generally and naval forces specifically. The object embraces one or more specific objectives, the achievement of which will constitute accomplishment of the object or the goal of naval warfare. The object is a strategic concept because it is concerned with the effect of the use of sea power. Somewhat confusingly, Mahan distinguishes the *object* of naval warfare from the *objective*, which he sees as a tactical concept because it is concerned with how to employ sea power in order to achieve the object.

Mahan quite properly insists upon an analysis of the object as the first step to strategic realism. A critical examination of any war must first of all identify the military objective to be gained by force of arms. The next question for determination is the effect on the general military and political situation of the achievement of that specific military objective: that is, whether a particular effect will constitute accomplishment of the general object. Another and simpler way of putting it is to inquire whether tactical success (the employment of naval or military forces to gain a specific objective) will produce the desired strategic effect (object). Thus, a determination of what specific military action has achieved, followed by a determination of the effects of this achievement are the two irreducible parts of the fundamental strategic question.

On the basis of his historical studies, Mahan concluded that the tactical objective in naval war is the destruction or neutralization of the enemy fleet. This objective could be accomplished by any one or by a combination of the following means: (1) a climactic battle at sea, such as Quiberon Bay or Trafalgar; (2) blockade in port, such as the long blockade of the French fleet in Brest; or, (3) a distant blockade in port in hope that the enemy will sortie and engage in a climactic battle at sea. This last means is what Nelson sought in his two-year blockade of Toulon.

Control over the enemy fleet is the one factor common to all three means. Control can result from destruction of the enemy fleet, from keeping it bottled up in port or from watching it and waiting for it to sortie. Thus the object of naval warfare is not necessarily destruction of the enemy fleet, but control over it by some means. Naturally, destruction as a result of battle has frequently been the means by which control has been established.

However it is established, control for a purpose is the true strategic object of naval warfare. Control may be established through destruction

of the enemy fleet, as Mahan suggests. But destruction is not necessarily the only tactical means by which to achieve the object of naval war. It is only one of many means to establish control.

Control for a purpose obviously is not established for its own sake, but for the contribution it can make to the achievement of the political goal for which the war itself is being fought. In other words, control is sought for the effect it will produce. Naturally, it is intended that this effect in turn will help to achieve the goal of the war. Certainly, achievement of the tactical objective will result in some form of control over the enemy or over a situation. In order to be meaningful and to be relevant to the overall war aims, such control must tend to produce an appropriate effect. Therefore, strategy is at root concerned with the effect that control, established by achieving the tactical objective, is able to produce.

Once the object or the strategic effect of naval warfare has been established and once the necessarily specific subordinate tactical objectives which will produce the desired effect have been identified, it is then possible to examine the merits and the faults of the various tactical operations undertaken to achieve the objectives. This latter examination constitutes tactical analysis, while the two preliminary or former examinations more properly belong to the realm of strategic analysis. Both strategic and tactical analyses are necessary to a full understanding of a particular war. Mahan's book is replete with tactical analyses. Indeed, he is very much at home when he is describing the salty, technical details of the many naval engagements and operations between 1660 and 1783.

Mahan suggests an outline for analyzing and understanding wars as they have occurred in history. This outline is indispensable as an aid in keeping clearly in view the essential points around which further analysis can be made. It should give "only the main features, unencumbered by detail," and it should precede more exhaustive discussion.⁴

There are three essential features in any such outline.

First, the principal and secondary belligerents must be identified. This requires only enumeration.

Second, the object or the goal of the war from the standpoint of the belligerents must be stated. The object of the war is derived from the motives or reasons because of which the belligerents entered the war. It is thus a product of national interests and national policies as perceived by national leaders, and has its origins both in internal and in international politics. The object of the war, therefore, should be stated

⁴ Alfred Thayer Mahan, *The Influence of Sea Power Upon History, 1660-1783* (New York: Hill and Wang, 1957), p. 454.

in terms both of the war aims of the belligerents and of the ultimate political effects they seek to bring about by engaging in the war. In short, the object of the war is essentially political because the war itself arose from a political situation.

Third, each belligerent must select tactical objectives which will achieve his war aims and produce the effect desired as the object of the war. If a belligerent seeks to work a change in conditions, he must necessarily go on the strategic offensive and select his tactical objectives accordingly. On the other hand, if a belligerent seeks to maintain the *status quo*, he is on the strategic defensive, because he must ultimately defend against a challenge. In the latter situation, he has the choice of waiting for his opponent to attack, or he may take the tactical offensive in order to forestall such a challenge.

Regardless of whether a belligerent is in a strategically offensive or defensive position, he must establish a hierarchy of objectives. This hierarchy should include immediate, middle-range and long-range objectives; the geographical areas for the main effort; and the geographical areas for the secondary effort, where defense can be distracted and strength dissipated in favor of the primary areas.

Mahan reserves some of his sharpest criticism for the French failure to recognize the correct objectives and their insistence upon pursuit of "ulterior objects." To him this pursuit embodied the cardinal fault of French naval policy. Mahan quotes French historian Ramatuelle for a succinct statement of the fallacy: "The French navy has always preferred the glory of assuring or preserving a conquest to that more brilliant perhaps but actually less real, of taking some ships, and therefore has approached more nearly the true end that has been proposed in war."⁵ In their eagerness to achieve the strategic objective (the conquest of territory), the French sometimes failed to take the tactical preliminary step (destruction of the British fleet) without which their strategic objective could not be assured.

The substance of Mahan's criticism rests on the French failure to observe a correct order or hierarchy of objectives by attempting to accomplish a long-range objective, before achieving immediate and middle-range objectives.

Mahan observes that if the function of the navy is to assure one or more positions ashore, then the navy truly becomes an adjunct of the army. In such a case naval action becomes subordinate to the army's actions ashore. However, if action ashore is dependent upon free and unfettered use of the sea, then the true function of the navy is to ensure such use. As indicated earlier, that objective may be accomplished by

⁵ *Ibid.*, pp. 253-254.

neutralizing the enemy fleet, either by its destruction in battle or by its blockade in home ports. Under these circumstances, pursuit of the objective ashore without first dealing with the enemy fleet constitutes commission of the “ulterior object” fallacy, because a conquest ashore can only be assured and maintained by a prior destruction or neutralization of a possible opposing enemy fleet.

Mahan frequently refers to the “ulterior objects” fallacy, and he gives many examples. Two are particularly apt. In early 1756 the British maintained a garrison at Port Mahon on the island of Minorca. The French, distracting British attention from the Mediterranean, were able to transport from France and to land a sufficient force to invest Port Mahon. Not surprisingly, the British response was to send a fleet to lift the siege. The ensuing engagement between the French and British fleets in May 1756 was entirely indecisive. Although the French could have tacked to windward and crushed the British van, they failed to do so, because they pursued the “ulterior object”—the conquest of Port Mahon—instead of accomplishing the immediate objective, which should have been the destruction of the British fleet. The successful investment of Port Mahon depended upon control of the sea: if the French controlled the sea, Port Mahon would sooner or later fall; if the British controlled the sea, the French forces ashore would wither on the vine.⁶

The second example occurred in 1782 when de Grasse who was in the area of the Windward Islands chose to support the French conquest of various islands, rather than to destroy part of a divided British fleet when he had the opportunity to do so. Later when the portions of the British fleet joined and brought the French fleet to battle, de Grasse was both defeated and captured by the British. Thus, the French lost not only a naval engagement, but also the ultimate object that de Grasse was supposed to be pursuing.

Mahan is certainly fair in criticizing the French for failure to establish a correct hierarchy of objectives, which in turn led them to pursue the “ulterior object.” This was a failure of strategic analysis. Two questions arise: how can similar failures be prevented? And, what kind of analysis is necessary to establish a proper hierarchy of objectives? Acceptance of Mahan’s thesis that command of the sea is the object of naval warfare is not sufficiently precise. It still remains to be seen what questions can be asked to avoid such a failure in the future. There are four categories into

⁶The British failed to persist and withdrew to Gibraltar. The British Commander, Admiral Byng, was subsequently convicted by a court-martial for failing to do his utmost either to defeat the French or to relieve the garrison of Port Mahon. (Conviction carried a mandatory death sentence. As the King refused to pardon him or to grant clemency, Admiral Byng was shot to death on his own quarterdeck.) What the French could have taken from the British, but did not by naval action, they nevertheless gained by virtue of Byng’s error.

which appropriate questions can be grouped. These categories are by no means exclusive.

1. **What is the character of the war?** In a war between England and France, the respective armed forces can most conveniently meet on the ocean. If they are to engage in combat on the European continent, England will need allies. This was the case in the War of the Spanish Succession. On the other hand, at the outbreak of the Seven Years' War, England had no allies on the European continent, although Prussia entered the war against France soon after. The war of 1778-1783 was entirely a maritime war between England on one side and France and Spain on the other. In such a war, maritime considerations and maritime objectives must naturally take precedence. Since the enemy fleet poses the main military threat in a maritime war, the destruction or neutralization by blockade of the enemy fleet should be the primary objective, the accomplishment of which is the only way to gain the object or the goal of the war. Viewed this way, the "ulterior object" as pursued by the French was indeed a fallacious naval policy.

2. **What is the end effect desired (object)?** The answer to this question demands an analysis of what each belligerent seeks to gain by the war and what specifically constitutes the achievement of the war aims. This is a political question and can only be answered in political terms. It is also the primary concern of strategy which seeks to produce a military effect that will contribute to the accomplishment of the political goals.

3. **What can help achieve the end effect desired (object)?** This is another way of asking at the highest governmental levels what specific tactical objectives should be pursued by one's own forces in order to gain the overall object of the war? In the case of a maritime war between England and France, the tactical objectives the Admiralty assigned to the Royal Navy were generally first to seek out and to destroy the French fleet at sea, and barring this, to establish a blockade of the French ports, such as Brest and Toulon. From the point of view of the Admiralty, this was essentially a tactical problem because it was concerned with the employment of forces, that is means, for the purpose of achieving the goals of strategy.

4. **What can prevent or hinder the achievement of the desired end effect (object)?** In other words, what can the enemy do to prevent one's own forces from accomplishing the strategic object necessary to bring the war to a successful conclusion for one's own side? Again from the British standpoint in a maritime war with France, the union of the

French Atlantic and Mediterranean fleets could pose an extremely serious threat to her maritime communications upon which she was dependent for her wealth and power. Moreover, if the British fleet were destroyed or even crippled, England would be open to invasion. Thus the British sought to divide the French forces so they might be dealt with more easily when they were separated.

This line of inquiry is particularly important because strategic analysis must take into consideration enemy objectives and possible moves. Strategy and tactics, after all are, as General André Beaufre has pointed out, a dialectic of at least two wills.

It is no accident that Mahan chose Great Britain as the subject for his study of sea power. The rise of the sceptered kingdom from an island appendage to northern Europe to an Empire that girdled the globe was a remarkable political achievement. Since Great Britain is an island, sea power was indispensable for the establishment of the British Empire. The British correctly saw that an enemy fleet was the main military threat to British possessions. An enemy fleet was also indispensable to a successful invasion of the British Isles. Thus, he concluded, the tactical objective of the Royal Navy most of the time was quite properly the destruction and neutralization of the enemy fleet.

Mahan generalized this conclusion to the extent that the true object in war of any navy ought to be the establishment of command of the sea by the destruction or neutralization of an opposing fleet. Underlying this conclusion is the concept of establishing control for an effect. It is true that Mahan does not state this in so many words. But this construction is fair to Mahan, and it flows logically from his analysis and from his premises, which were the result of his historical endeavors. Mahan the scholar broke new ground in his studies. Mahan the professional naval officer intuitively recognized and understood the fundamentals of strategic reasoning, to which he continually referred.

III

It is no exaggeration to say that Sir Julian S. Corbett's *Some Principles of Maritime Strategy* is a masterpiece of elegant but clear and simple prose in which he sets forth with discipline and rigorous logic the distilled results of his studies of maritime war. Corbett, trained as a lawyer, later became a civil servant and an eminent historian. Unlike Mahan, who sought to show the relationship between sea power and the course of history, he set out to identify, to elucidate and to expand on the particular characteristics of maritime war.

Corbett's only flaw, if it is one, is that he treated British maritime experience as the norm. This understandable bias was justified by

Britain's virtual monopoly of the successful employment of sea power. Mahan too, used the British example as his model for a discussion of sea power. Rosinski also uses the British example as the norm when he describes how necessary sea power was to the Allies in World War I and how it was indispensable to them in World War II.

Some Principles of Maritime Strategy is based on a series of lectures Corbett gave at the Royal Naval War College at Greenwich in the first few years of the twentieth century. At that time naval officers were faced with the necessity of adapting their techniques and concepts to revolutionary technological change: for example, steam had replaced sail; rifled bores and ballistically designed shells had replaced smooth bored cannon and round shot; the range of naval weapons had expanded from a few hundred yards almost to the horizon; all of this was in addition to the introduction of electricity. Professional naval officers today are faced with no less baffling problems, the only difference being that today they accept change as a constant factor.

Because technological changes had wrought significant modifications in traditional patterns of warfare, some naval officers in Corbett's audience had concluded that previous historical experience was irrelevant. Corbett sought to disabuse them of what he considered an erroneous conclusion. His method of attack was threefold. First, he presented a theory of war, which was inspired to a large extent by the work of Carl von Clausewitz. Then, he proceeded to the theory of naval war. Finally, he discussed the specifics of the conduct of naval war. He categorized naval operations according to the objectives sought. He showed how different objectives were appropriate under different conditions.

In developing his theory of war, Corbett agreed with Clausewitz that war is an exertion of violence to secure a desired political end. The realization that policy must always govern the conduct of war is central to Corbett's theory of war. Armed forces are employed to gain the ends of policy; that is, to produce a desired effect.

Policy in turn is a conclusion or evaluation derived from a political process in which national security and other interests are weighed and appraised. This process is greatly affected by national, group and individual perceptions.

In planning the conduct of a war, the military (including naval) commanders must ask the political leaders several fundamental questions:

- What is the war about?
- How much value do we attach to our political objects of the war?
- How much value does the enemy attach to his political object of the war?

Obviously, the military commanders must know or have some idea of the answers to these questions, or, at the very least, have reached an understanding with the political leaders about them, before they can meaningfully employ armed forces to achieve the desired political ends.

If the answers to these questions are ignored, or if these questions are not even asked, then military commanders who employ their forces under such conditions will probably commence operations which will prove at best to be irrelevant to the issues at stake, in addition to being quite probably a needless waste of blood and treasure.

A theory of war is necessary to Corbett as an overall unifying factor, embracing both land and sea operations, because it establishes the relationship between the employment of land and sea forces and the political effects sought by their employment. Starting from this point, he then proceeds to a more particular discussion of maritime strategy.

In a war in which the sea is a substantial factor, the principles of maritime strategy apply. To Corbett these principles are not prescriptive in the sense that when correctly applied they will produce success. Far from it. The principles to which he refers are not "how to" principles, but rather they are analytical principles in the sense that they describe the subject matter. Mastering them will lead to a greater understanding of maritime war.

His principles of maritime strategy are to Corbett as the theory of war was to Clausewitz: both should educate the mind of the commander, but not accompany him to the battlefield. Thus, the principles of maritime strategy are useful for purposes of elucidation, of analysis and of understanding. By no means are they intended for prescription.

Corbett's first principle of maritime strategy relates to the object of naval war as he conceives it: that is, the end or net result to be achieved by naval operations. Corbett states the principle thus: "The object of naval warfare must always be directly or indirectly either to secure the command of the sea or to prevent the enemy from securing it."⁷ Once the object—command of the sea—has been achieved, purely naval strategy is at an end, because one side is able to exercise control of the use of the sea. As exemplified by Britain's wars with Napoleon, naval operations do not cease when command of the sea has been achieved. Subsequent naval operations are directed towards some other object, such as an invasion of enemy territory.

What precisely constitutes command of the sea depends upon qualitative characteristics of the sea. Unlike land, the sea cannot be

⁷Sir Julian S. Corbett, *Some Principles of Maritime Strategy* (Annapolis: Naval Institute Press, 1972), p. 87.

conquered or reduced to possession. Also, our own forces cannot subsist upon the sea, as they can upon the land. For centuries the only positive value of the sea has been as a means of communication. In the eighteenth and nineteenth centuries the sea provided the communications routes by which the British Empire was established and grew. This positive use of the sea was also matched by a negative use by which the British contained Napoleon, among their other enemies, to the European continent.

Command of the sea is essentially control of maritime communications for a specific purpose. Control of the sea does not mean the occupation of fixed points, as on land, because that is not possible. Control in this sense means the capability of moving across the sea without significant hindrance or opposition and the capability to prevent an opponent from so moving. The purpose of the control depends upon the political conditions under which the control was instituted in the first place.

Achieving command of the sea is not a zero-sum proposition. If one side loses it or does not have it, the other side does not necessarily gain it. Thus, if we deny command of the sea to an enemy, we do not necessarily gain it ourselves. If we lose the capacity to control the sea, it does not automatically follow that the enemy has gained it. This characteristic of command of the sea is the reason it is usually in dispute and it explains the importance and the utility of the strategic defensive in maritime warfare.

Since command of the sea is really control of the seas, it can exist in various degrees or states. The types of control of the sea in any given area at any given time will generally fall into one of the following categories:

1. **Absolute Control—Command of the Sea.** In this situation, one side has complete freedom to operate without any interruption. The other side cannot operate at all.

2. **Working Control.** The dominant side can operate with a high degree of freedom and a minimum amount of risk. The enemy can operate only with high degree of risk.

3. **Control in Dispute.** In this situation, each side operates with considerable risk. Each side is also faced with the necessity of establishing working control of limited portions for limited times in order to conduct specific operations. Historically, this situation has generally prevailed more often than the others.

4. **Enemy Working Control.** This is the reverse of situation 2.

5. Enemy Absolute Control. This is the reverse of situation 1.⁸

These categories emphasize the point that Rosinski makes in the chapters that follow, namely that command of the sea does not mean control of the sea *per se*, but rather control of an opponent. Corbett emphasizes that the object of naval warfare is the control of communications and not the conquest of territory. These rough categories show that control, which is a prerequisite to command of the sea, is always a relative matter; that it involves both geography and time; that it involves a degree of risk, and that it involves the relative fighting power of both sides. These categories also show why when one side loses command of the sea, the other side does not necessarily gain it.

One way of establishing control and hence of acquiring command of the sea is by battle. But battle to Corbett is only the means by which the end, control, is established. This point may seem obvious, but at the time Corbett was lecturing the belief was current in naval circles that the sole function of the battle fleet was to engage the enemy battle fleet. This concept was a triumph of the means to the exclusion of the analysis or even a recognition of the ends for which the means is or should be employed. Rosinski, as we shall see, elaborated upon this point when he expressed concern over the effect that sea power could and did produce on the overall political relationships of the protagonists.

The means constitute no more than a method of achieving a given end or a vehicle by which the achievement might be sought. Concentration on the means—battle fleet versus battlefleet—ignored the effect of such employment. Strategy, as Corbett rightly pointed out, is concerned with the employment of armed force. The battle may be useful and indeed necessary, but it is only a means to produce an effect and nothing more.

Enthusiasts of the climactic sea battle as an end itself were no doubt disturbed by Corbett's comment "Defeat the enemy's fleets as we may, he will be but little the worse."⁹ Maritime war does not consist solely of sea battles between fleets. Destruction of an enemy fleet is the first step in "deadening the national activities at sea." Secondary action by way of capture and destruction of enemy property is necessary in order to induce the enemy to conclude a peace. Thus, Corbett makes a strong argument for the traditional British view that neutral shipping engaged in commerce with an enemy may be properly interdicted as well as the enemy's own merchant shipping.

⁸I am indebted to Rear Admiral Henry E. Eccles, USN (Ret.) for this discussion of the types of control.

⁹*Ibid.*, pp. 94-95.

While additional pressure brought against an enemy by absolute control or command of the sea can be significant, it usually has not been decisive, as the British found out. The effects of maritime strangulation were usually slow and galling. For this reason, decisive action on land against the continental enemy was necessary. Even so, the interruption of the enemy's use of the sea for his own purposes and confiscatory operations against his commerce have been traditional functions of the Royal Navy. Thus, British sea power was frequently able to create a situation in which the British army or an Allied army (or both) were able to bring about a decision in the war. This is the reason Rosinski concluded that sea power was certainly useful before World War II and absolutely indispensable in that war.

In time of war, naval operations can be classified by their relationship to two particular objects: obtaining and disputing command of the sea, and exercising command of the sea. These two particular objects give rise to three general categories of naval operations:

1. Methods of obtaining command. In the event of war it will generally be to the advantage of the side having the preponderance of naval force to seek a battle with an overall inferior force in order to end the disputed state of command of the sea. This is the basis of the admonition to seek out the enemy and destroy him.

Corbett and Mahan agree on this point. They both see the object of naval warfare as the establishment of control of maritime communications. This means that command of the sea must be achieved either by obtaining a decision in a major battle, or by blockade in which the inferior force takes refuge in a protected port. In the Anglo-French Wars, the British frequently experienced difficulty in inducing the French fleets to leave port. On the other hand, decisive results were obtained at Quiberon Bay and at Trafalgar.

2. Methods of disputing command. Command of the sea is in dispute when the relative strength of both sides is not adequate for either side to secure command. Dispute of command of the sea can be continued by the inferior force, provided it skillfully utilizes the special characteristics of maritime warfare in an active defense to prevent its larger adversary from obtaining command of the sea.

For example, an inferior force can use the breadth of the ocean to elude a superior force, which may find it difficult, if not impossible, to bring the inferior force to combat. This is the concept of the "fleet in being," which presents a potential threat to a larger force so long as it continues afloat. Thus, a "fleet in being" may prevent a larger force from obtaining command of the sea by using the "fleet defensively, refusing

what Nelson called a regular battle and seizing every opportunity for a counterstroke."¹⁰ In addition to this traditional means of disputing command of the sea, Corbett recognized the possibilities of using mobile torpedo attacks and offensive mining.

3. Methods of exercising command. The objective of the naval operations in this category clearly distinguishes it from the previous two. In obtaining or disputing command the objective is to secure the use of the sea for ourselves or to prevent an enemy from using it himself. Exercising command of the sea logically can occur only when command of the sea has already been established. Exercising command of the sea implies that one side already has it and thus he is using or employing the sea for his own purposes.

When command of the sea is exercised, the objective is not to gain or to keep command of the sea, but to use the sea as desired for specific purposes. Reflecting historic British concern over the possibility of invasion from the continent, Corbett first lists defense against invasion as an example of the exercise of command, because the destruction of the enemy's transports and not his battle fleet is the objective. Another method of exercising command of the sea is attack and defense of trade, in which the tactical problems and considerations differ significantly from fleet operations having to do with obtaining or disputing command.

A third is the conduct of expeditions in which the navy must not only escort a landing force of whatever size, but must also engage in supporting operations. In this case the success of the expedition is the primary objective.¹¹ An enemy fleet should be engaged to the extent necessary to ensure the success of the expedition, which is the primary objective. The commander of the expedition should not be diverted from his primary objective by temptations to engage an enemy force for purposes of destroying it. Primary and secondary objectives must be kept clearly in mind. The hierarchy of objectives must be observed.

Corbett presents his arguments and analysis with lawyer-like skill and with lucid simplicity. Some *Principles of Maritime Strategy* is more than justified, if only as a clear statement and a distillation of the fundamentals of the subject. Precisely because it was based on the experience of the so-called classic age of naval strategy, it is an admirable

¹⁰ *Ibid.*, p. 226.

¹¹ Notwithstanding the logical necessity of obtaining command of the sea before exercising it, frequently amphibious operations or expeditionary operations have been conducted when command is in dispute. This historical experience in no way detracts from the objective of those operations. It merely underlines the complexity of strategic necessity and requires planners and commanders to keep specific objectives closely in mind.

statement of the perceptions and concepts which form the basis of our maritime historic experience and of our professional collective memory.

IV

It is imperative to know and to understand where we have been so that we might better adapt to the rapid and revolutionary political and technological changes that typify the present era. These changes are bewildering in themselves. If we do not have an anchor to windward in the form of an understanding and an appreciation of previous naval experience, we risk being engulfed by the present tempest of change. Rosinski's studies bridge the gap between the period when Mahan and Corbett wrote in the late nineteenth and early twentieth centuries and the advent of the era of nuclear weapons.

Rosinski's untimely death in 1962 coincided with the dramatic rise in Soviet naval and maritime power. Had he lived he might well have joined with those contemporary writers and observers who ascribe a Mahan—Corbett lens to Admiral Gorshkov's view of sea power and the role of navies in the late twentieth century. We can be certain that Rosinski would not have assumed such a lens. He would have analyzed Soviet actions and pronouncements before arriving at such a conclusion. The most useful lesson we can draw from his studies both of sea power and of the theories of naval warfare is that we must understand our own intellectual concepts, that we must analyze the relevant data and, above all, that we must not jump to conclusions based on unexamined assumptions.

I

COMMAND OF THE SEA *

For nearly fifty years—ever since Mahan and Colomb started to lay its foundations—naval theory has based itself upon the necessity of gaining “command of the sea.” That idea has been so universally accepted, its sway so absolute for so many years that, like all dogmas too long unopposed, it has tended to develop into an unthinkingly repeated creed, professed without any clear understanding either of its purpose or its implications. The vehement and unexpected challenge which it has found in recent years can, therefore, claim at least this merit that it has made us realise how imperfect our appreciation of this fundamental element of naval strategy still is, how urgent the need for a closer examination than it has hitherto received and how vital the issues involved in its proper understanding.

If we wish to understand what Mahan himself meant by his emphasis upon the necessity of acquiring “command” we shall do better not to turn to his well known great historical works, but to those lesser studies which, almost completely forgotten to-day, offer an infinitely more illuminating insight into his thoughts than his more comprehensive publications. There, in a long essay on “Considerations governing the disposition of fleets” contributed by him in 1902 to the *National Review* and remarkable as his only attempt at a coherent interpretation of naval warfare as a whole, we come across, amongst many other highly interesting and important observations, the startling allusion to “the fundamental principle of all naval war, that defence is insured only by offence.”

This statement is so remarkable that we must examine its form a little more closely before we turn to analyse its content. It is one of the fundamental characteristics—and weaknesses—of Mahan’s theory that he is inclined to accept the “principles of war” evolved in land warfare unquestioningly for war at sea as well. If on this occasion, and on this occasion only in the whole of his works, we find him referring to a fact as “the fundamental principle of all naval war” we are forced to infer that this fact in his eyes constituted, not only the keystone of naval strategy, but the point as well in which war at sea differed fundamentally from war on land and from which therefore its peculiar characteristics were to be explained.

What then is the meaning of this sentence?

*Reprinted with permission from *Brassey’s Naval Annual*, 1939.

THE PROBLEM OF NAVAL DEFENCE

From the time when ships for the first time were gathered into fleets and the primitive "cross-raiding" of the Middle Ages gave way to ordered strategy, naval commanders have been beset by one overwhelming perplexity—how to intercept their opponents before these could have wrought irreparable damage to the interests entrusted to their protection. How easy, in comparison, is the task of a commander on land. There a general, if he does not feel strong enough to seek out and overthrow his opponent in his own territory, can interpose his army between the enemy and his country like a shield by taking up a favourable position near the frontier, in the secure knowledge that his opponent must either come to meet him there with all the advantages of defence in his favour, or else, if he tried to slip around him, would expose himself to all the dangers of a counterstroke in flank and rear.

How different and how infinitely more difficult is the lot of the naval commander! Between him and his opponent there stretches not the almost imperceptible frontier line, permitting the establishment of direct contact from the first moment of the war, but the broad common of the sea; immense compared with the narrow circle of observation and reach of fleets; unobstructed by accidents of the ground capable of canalizing an attacker's advance into certain narrow channels; devoid of occupation and consequently of the timely information available from that source; thus offering the infinitely more mobile attacker almost unlimited opportunities for evading the defender's vigilance and striking directly at his interests before he can interfere, the more so as these interests are themselves incomparably more widespread and difficult to guard. The interposition of a broad neutral ground between the two belligerent countries, instead of the direct contact of the common frontier, extends the area threatened by enemy attack from the strip adjoining this frontier to the whole coastline of the defender—in the case of island powers like Great Britain and Japan almost to the whole country. In these circumstances even the task of defending merely the coasts of the home territory may prove exceedingly difficult; it becomes absolutely harassing when colonial and other oversea interests multiply the number of vital objectives at which an attacker might be able to strike. The whole of Napoleon's Trafalgar campaign was based upon this distracting effect of an unlocated force at sea; and when Villeneuve's squadron got to sea at last, the objectives believed to be threatened by it were as far apart as Alexandria, Ireland and the West Indies.

Yet the defence of territorial possessions against attacks from the sea is not the most difficult task confronting a naval commander. After all, the local superiority gained by the attacker through evasion—unless

subsequently confirmed by a victory over the defender's fleet hurrying to the rescue, as in the case of the French before Minorca in 1756 or before Yorktown in the Chesapeake Bay in 1781—can necessarily be only temporary. Most territorial objectives, however, will be capable of offering some resistance; vital points will be protected by fortifications, local forces able to maintain themselves until relieved. Thus the danger from such surprise attacks over sea lies mainly in the chance that the attacker may be able to achieve a decisive advantage before the defender's fleet can close with him and bring him to battle; as in the classical case of Napoleon's Egyptian expedition of 1798.

Infinitely more difficult to safeguard against the attacks even of a greatly inferior opponent is that other national interest represented by the maintenance of trade and shipping. Moving beyond the confines of the national territory over the great open common of the sea, it cannot seek protection behind the stationary defence of fortresses; it lies open to every attack launched against it. Again, the extreme vulnerability of merchantmen and their incapacity to hold out until relieved makes their loss almost certain as soon as they fall in with an enemy raider, while their dispersal in a continuous stream of isolated units all over the seven seas on the other hand immensely complicates the task of their defence.

Thus in naval warfare a commander cannot be satisfied merely with "establishing the line of defence close before the region to be defended"* , as his military colleague on land can take up a position near his frontier. Nor would he be able to improve his chances of intercepting his opponent to any considerable degree by taking up some position midway between his own and his opponent's shores. In the case of very wide areas such as the Pacific in a war between the United States and Japan, in which the sheer distances involved and the dangers of an eccentric move would act as a restraint at least upon the main forces of the two belligerents, an intermediate position would probably be able to afford a reasonable degree of security to shipping in their respective spheres. That, however, is obviously an exceptional case demanding a special investigation.

In all narrow seas, however, such as the Baltic, the North Sea, the Mediterranean or the West Indies, wherever fleets face each other at easy striking distance, there is and has been one and one way only for a naval commander to ensure the safety of his charges, and that is by sweeping his opponent from the board altogether; in other words by obtaining against him undivided "command of the sea." Nothing short of that will suffice.

*A.T. Mahan, *The Influence of Sea Power on the French Revolution and Empire* (Boston: Little, Brown and Co., 1893), I, p. 340.

That is the meaning of Mahan's words. Because "the sea is all one"; because no part of it can be fenced off, fortified and defended by itself, therefore effective protection of our own interests on or by the sea can only be assured by driving our opponent from the whole of it. Thus, whereas on land we need not necessarily overthrow our opponent to hold our own, at sea we are forced to overthrow and drive him from it altogether merely for the sake of assuring our own safety. That is the fundamental difference between war at sea and war on land.

THE NATURE OF "COMMAND."

This fundamental fact unfortunately is not as clearly brought out as it should be in the terms commonly applied to it. What we wish to command or to control is not "the sea," but our opponent, or the neutrals; it is precisely because we cannot "reduce" the sea "into possession" that there is the delicate and difficult problem of the neutral and his rights to be faced in naval warfare. Nor in "gaining command" do we acquire as is so often erroneously asserted, for ourselves what we had been enjoying all the time, use of the sea; we acquire the power to exclude our opponent from that use and thereby to prevent him from attacking us or from interfering with our own actions. The word "command" does not preclude the idea that the object to be commanded might not be divided; "exclusion" shows beyond any possibility of a misunderstanding that only one side can obtain "command" by excluding the other, and that, although "command" may be local and temporary only, simultaneous "divided command" of the same stretch of water is impossible and no "command" at all. It is this one-sided character of the "command" which gives to war at sea such an infinitely more dramatic aspect than on land. At sea there is no halfway house between victory and defeat, because there is no difference between what is needed for defence and what for attack. One side only can gain security at the cost of the other—or neither.

Nor does the matter rest there. Beyond the economic distress imposed upon the weaker party in naval warfare by the interception of his sea communications "command of the sea" confers upon the victor a one-sided advantage to which neither war on land nor war in the air has any parallel to offer. For the belligerent who has obtained for himself "command" not only enjoys practically complete immunity from invasion over sea, but in addition is capable himself of threatening with perfect impunity his opponent with all conceivable forms of attack against his territories, from diversionary landings to real invasions. Whereas on land the weaker belligerent, as long as his forces are not completely destroyed or dispersed, can not only carry on the struggle,

but still hope to turn the tables upon his opponent, in maritime warfare the side which loses the power to dispute the "command" is practically helpless against the attacks of its enemy and without any hope of changing that situation.

COMMAND OF THE SEA AND BLOCKADE

The obvious, the best and the shortest way to obtain such command has always been to seek out the enemy's main forces and destroy them in battle. Unfortunately, in naval warfare we are not always at liberty to do so. On land, once the issue has been joined, there is no possibility for either side to evade its opponent's impact, and an attack can, therefore, be pressed home, if need be, until it has completely broken down the weaker side's power of resistance. At sea, on the other hand, the weaker side not only enjoys almost unlimited possibilities of evasion, but, if an attack should be pressed home to its shores, is always able to remove its forces out of the enemy's grasp altogether, by the simple expedient of withdrawing them into its fortified ports, where he is unable to follow them. Thereby it does indeed relinquish the command to its opponent, but, by precluding him from completing his success and preserving its powers of resistance and counter-attack, prevents him from definitely establishing and consolidating his superiority.

In such a situation, therefore, there is nothing left to the stronger side but to attempt to secure the precarious temporary command gained by it, by posting superior forces before the ports into which the enemy has withdrawn and thus establishing a hold upon him where there is a reasonable chance of intercepting him—that is his point or points of departure.

"Command of the sea" thus in the last resort rests upon the power to blockade. Not in the sense in which some of Mahan's critics have misunderstood his teachings, as if by blockade a superior fleet could enjoy all the privileges of command of the sea without running the risks inseparable from battle. Nobody has been more emphatic than Mahan himself upon the grave defects and limitations of the control established by even the closest of blockades, the tremendous strain imposed by them upon the blockaders, and the immense feeling of relief brought about by every decisive engagement. But decisive battles such as Quiberon Bay and Tsushima, relieving the victorious side of all and every apprehension on the part of the vanquished, are rare in naval history. Even Trafalgar did not relieve the British Fleet from another ten years of dreary watch over the military ports of the Continent, from Antwerp to Venice; and in the vast majority of cases the stronger side has to be satisfied with the precarious hold upon its

opponent provided by blockade.* Without that possibility to fall back upon, the mere determination to seek out the enemy and bring about a decision would be of no avail to secure "command." Nor is blockade merely a way to acquire "command"—by forcing the enemy to come out eventually and offer himself to battle—but must be considered itself a *form* of command, because—although with many imperfections—it fulfils its function of excluding our opponent from the use of the sea. Thus it is blockade which really constitutes the corner-stone of naval warfare, while the fuller measure of command achieved by the complete destruction of the enemy's main forces forms merely its superstructure.

This defensive function of blockade, so often unduly disregarded compared with its offensive function as an instrument to bring economic pressure to bear upon our opponent, is stressed by Mahan throughout his writings, and never more clearly and convincingly than in the concluding section of the special essay on "Blockade in relation to Naval Strategy," contributed by him in 1895 to the *Journal of the Royal United Service Institution*.

Using the term blockade loosely, as the nearest single word to comprise any close watch over the entrance of an enemy's port with a view to impede egress or ingress, such blockades are of a twofold character—offensive and defensive. The first is directed against both egress and ingress, but more especially ingress, being meant to prevent the entrance of needed supplies, and being, therefore, essentially a blow at his communications. The second also has a twofold aim, but its chief object is to prevent egress unmolested, because such freedom of issue to an enemy means danger, more or less great to certain national interests; which because they be outside the national boundaries cannot be protected by ordinary defence measures, by fortifications and organized land forces. Such a blockade is, therefore, essentially defensive. Resort to it implies the existence of great national *external* interests, which are open to injury and can in no other way be so cheaply, sufficiently and certainly be defended. If the external exposed interests are many, it is impossible to imagine any means of guarding them equal in efficiency to that of heading off the danger at its sources. This is the strategic necessity—the decisive strategic consideration, which dictates the method essential to be adopted.†

*Moreover, once such complete command has been established naval strategy proper, as Corbett remarked, is at an end. It is only as long as command rests merely upon blockade that such problems as defence of trade and its interconnection with the control of the enemy's main forces retain any real significance.

†*Journal of the Royal United Services Institution*, Nov., 1895, pp. 1067-8.

THE THREEFOLD FUNCTION OF BLOCKADE IN NAVAL DEFENCE

This remarkable passage is of quite exceptional interest. In it we find, together with the express recognition of the "external" (and scattered) nature of the interests involved as the fact which makes their defence by blockade imperative, the first attempt to explain, although imperfectly, the different functions blockade fulfils in such defence. For the protection of these external interests against attack is the fundamental task of the blockade, but not the only one. In addition to it blockade serves to fulfil two other functions, intimately linked up with it and hardly less important, yet almost completely ignored—to ensure our force against being cut up in detail and to make defence, and in particular defence of trade, economically possible at all.

For—a point which unhappily has not always been clearly enough realized in recent naval discussions—defence of our interests, in particular our trade, through direct protection alone is not merely, as we have tried to explain above, inadequate; it is, above all, a fundamentally vicious strategy, in so far as it leaves the enemy the full initiative in attack, at the same time that it forces us to a fatal dispersal of our own forces. Hence our cruising squadrons and convoys would constantly be facing the danger of running into a superior enemy and being overwhelmed by him; a danger which is the greater in view of the total lack at sea of accidents of the ground, which might enable an isolated force to maintain itself until relieved.

Even in the highly improbable case, therefore, of neither side trying to exploit this state of things and both belligerents confining their activities to the direct protection of their own trade and sporadic attack by cruiser warfare upon its opponents—as some are inclined to prophesy—such clashes between the individual fractions on both sides as would occur would obviously be determined by the laws of chance and not according to the total strength of each side—a state of things which clearly tends to favour the weaker. In fact such a course on the part of the stronger sea power would be nothing less than the voluntary and absolutely purposeless renunciation of all the possibilities, both of full defence and of effective attack, conferred upon it by its superiority.

Above all, however, there is no reason whatsoever why, in case the stronger side should really thus neglect to make use of its superiority, the weaker side in its turn should fail to be struck by the obvious idea of temporarily leaving its convoys at home and concentrating all its forces upon a shattering surprise attack upon its opponents' scattered host. Thus even if the stronger sea power should for some inconceivable reason fail to use his opportunity on its own account, the mere necessity of

protecting himself against the exploitation of that negligence by his opponent must force him by blockade at the same time to concentrate his own forces and to impose his control upon his opponents.* Blockade is thus not merely the means by which the stronger side in naval warfare assures the immunity of its territorial possessions and shipping. It is, above all, the method by which it is enabled to reduce the “natural anarchy” of naval warfare into the comparative order of a “planned strategy,” which will not only secure it from being cut up in detail in chance encounters, but also alone will enable it to make its superiority felt.†

The functions blockade has to fulfil in the strategy of the stronger sea power do not, however, end there. Hardly less important is the economy of forces effected by it, which alone makes defence of trade on a large scale possible at all. As Mahan says in the same essay:

Whatever the number of ships needed to watch those in an enemy's port, they are fewer by far than those that will be required to protect the scattered interests imperilled by the enemy's escape. Whatever the difficulty of compelling the enemy to fight near the port, it is less than that of finding him and bringing him into action when he has got far away. Whatever the force within, it is less than it will be when joined to that which may, at or near the same time, escape from another. Whatever the tactical difficulties involved, the strategic necessities compel a diligent study of how to meet them.‡

Here again we find the two aspects of blockade, concentration of our own and interception of the enemy's forces, co-operating, but this time not in coincidence, but as two distinct processes. On the one hand we have the economy in those forces directly opposed to the enemy's main force or forces, the “battlefleet,” effected by its concentration from the watch over the whole area to that over the enemy's base or bases; on the other there is the reduction in the strength of the forces entrusted with the direct protection of our shipping—the “control fleet”—behind the

*The following consideration may perhaps help to make the coincidence of these two aspects of blockade clearer still. As long as both parties in naval warfare remain on their own sides, they can either try to protect all, and then are forced to disperse their forces, or else, concentrate their armed forces and lay their interests open to surprise attack. The only point in which the defence in naval warfare can both concentrate its forces and at the same time interpose between its opponent and the whole of its far-flung interests is before the enemy's port or ports.

†The difference between the two can well be gauged, if we compare, for instance, the quite unnecessary uncertainties, difficulties and checks, which British naval strategy incurred during the greater part of the War of 1739, both in the West Indies and in European waters, through neglecting to watch first the Spanish and later on the French forces in their home ports, with the firm grasp upon its opponent's movements maintained and continuously re-established by it throughout that masterpiece of “planned strategy,” the campaign of Trafalgar.

‡*Journal of the Royal United Services Institution*, 1895, p. 1061.

general cover provided by the battlefleet, made possible through the interception of the enemy's main forces.

For without blockade, escorts, as we have seen, if they are to confer real security would have to be made as strong as the strongest enemy force operating in the waters to be traversed by it. In the old days therefore, when it was impossible to keep a fleet permanently in watch over the enemy's fleet, shipping was concentrated into huge convoys and conducted by the whole battlefleet through the offing of the enemy's fleet base and then, the danger zone passed, sent on under a much smaller escort.

The dangers and difficulties of this primitive system of naval defence were, however, such as to make its replacement by a better method an urgent necessity. Through these convoy duties the battlefleet was apt to be so tied up that it had to neglect the enemy's forces and thus expose the home country itself to the imminent danger of a sudden attack—as was the case as late as in the War of 1739. The protection which it was meant to afford, on the other hand, depending upon the assumption that the enemy's fleet had not moved from its port, remained but precarious, as was demonstrated, when in King William's War the whole French fleet which had left Brest unknown for Cadiz there fell upon the Smyrna convoy, sent on under a weak escort, and captured it. Thus the system of a permanent watch over the chief enemy ports, which began to take shape with the establishment of the Western Squadron in the latter part of the War of 1739 and found its perfection in the close blockades of the Seven Years' War and of the struggle against the French Revolution and Napoleon, although primarily directed against the attempt of an armed invasion, at the same time served to protect British shipping against attacks by the main enemy forces.

This substitution of a general indirect protection through blockade for the direct escort formerly afforded to convoys by the whole battlefleet did not dispense with all direct protection of shipping altogether. The extreme vulnerability of merchantmen even to the weakest forms of sporadic attack, referred to above, made their concentration in convoys and protection through escorts and special cruising squadrons against such isolated raiders as would always be able to slip even through the closest watch, still necessary. The essential point was, however, that these escorts, forming no longer the first line of defence, could henceforth be so far reduced individually that their total number could be sufficiently expanded to keep pace—though not without a severe strain upon the country's naval resources—with the steady increase in the volume of trade and shipping that had to be afforded protection in the later eighteenth century and the beginning of the nineteenth, for which it would have been impossible to provide with under the old system.

Thus blockade reveals itself as the measure by which a superior sea power, by the concentration of its main forces before the enemy's ports and the consequent reduction in the strength of the subsidiary control forces entrusted behind that "front line" with the direct protection of its shipping, is capable of reducing the task of the defence of its trade—impossible to fulfil as long as every convoy is threatened with the full brunt of the enemy's attack—to economically manageable proportions. Against this the weaker side's policy—having nothing to lose and everything to gain—has always been to counteract this concentration of the struggle by dispersing its sporadic attacks upon the stronger side's communications into as many points as possible, not only with a view towards increasing there by its chances of success, but, above all, of forcing upon the superior belligerent such an extension and strengthening of his escorts as to make the strain upon his resources unbearable.

COMMAND OF THE SEA IN WORLD WAR I

The system of naval defence by close blockade and direct trade protection through convoys had reached perfection in the wars against the French Revolution and Empire. For nearly a hundred years after that gigantic struggle up to the Russo-Japanese conflict, no major naval war occurred. In the meantime the technical fundamentals of naval warfare had undergone a change greater than any which it had experienced since the sailing ship replaced the galley. On the whole, the changes introduced in naval strategy by the substitution of the steam-driven ironclad for the three-decker tended to favour the weaker rather than the stronger belligerent.

The incomparably greater precision thereby introduced into the movements of fleets and individual vessels certainly was apt to strengthen the superior sea power's grip upon its opponent—though not perhaps as much as might appear at first sight, in view of the advantages which the blockading force used to derive from the restrictions imposed upon its opponents' chances of escape by adverse winds. But against this the steamship's dependence upon fuel supplies, greatly reduced cruising radius, and infinitely smaller capacity to keep the sea, tended to make extended operations or prolonged watches more and more difficult; while the new weapons developed since the American Civil War—the mine, the submarine, and the torpedo—threatened to make the close blockade impossible altogether. Sampson before Santiago de Cuba in the Spanish-American War of 1898 could still watch the narrow entrance just out of gun-range of the defender; Togo before Port Arthur, barely six years later, not only lost two battleships, one third of his main forces, on mines, but had to loosen his grip upon the port and its squadron to a

dangerous degree. The question arose—would a fleet, with the further perfection of these weapons, be any longer able to maintain even such a loose form of tactical blockade as Togo had employed; and what would become of naval strategy, if with that cornerstone the whole system of naval defence through command of the sea broke down?

The vital significance of that question was not realized at that time, either in Great Britain* or in Germany, despite the peculiar bearing which it had upon the strategic position of their navies. The German Navy in the years before the World War continued to base its whole strategy upon the assumption that the British Fleet in case of a conflict would once more sally forth to blockade the Heligoland Bight at close range and thus offer it with the opportunity for counter-attacks—in particular by her highly trained torpedo-craft, which, it was hoped, might reduce the Grand Fleet's superiority to such an extent as to give the German High Sea Fleet the chance of defying it in battle. This calculation contained one fundamental error. It completely ignored the fact that the unusually favourable strategic position of the British Isles with respect to the lines of communication of all powers bordering upon the North Sea and Baltic gave the Grand Fleet practically all the advantages of "Command of the Sea" which can normally only be acquired through battle or close blockade, without having to run the risk inseparable from these. Offensively, the control of German (and neutral) shipping, which the Grand Fleet exercised from Scapa Flow and the Channel ports was no whit less complete than if the German North Sea ports had been blockaded at close range, and probably even more effective in the final result, because it automatically included the neutral countries adjoining Germany as well. Defensively, the long range strategic blockade imposed upon the German High Sea Fleet could naturally not be in any way as close as would have been a tactical blockade of the Heligoland Bight, but it sufficed to fulfil its purpose. It was not able to protect all territories; leaving the German Fleet free to roam the North Sea it could not prevent it from bombarding the British East Coast; but it was capable of maintaining such a hold over the German Fleet as to ensure the other allied territorial possessions and practically all their communications against attacks by German surface forces. On the other hand the absence, with one notable exception of which more below, of any vital British lines of communication in the North Sea—which alone made it possible for the Grand Fleet to concede such a measure of freedom in that area to the High Sea Fleet—deprived the latter of the only effective means of bringing its opponent to battle

*Sir Julian Corbett in his *Some Principles of Maritime Strategy* (London: Longmans, Green and Co., 1918) is far less clear on this point than had been Mahan.

or cutting him up in detail and thus threw the German High Command back upon the strategical makeshift of bombarding the British East Coast; not for the sake of the damage inflicted thereby, which was strategically irrelevant, but as psychological pressure upon the British Command to induce it to a rash exposure of part of its forces—a plan which very nearly succeeded in the first great German raid upon that coast on December 16, 1914.

The full significance of that achievement was not revealed until the submarine campaign threatened the Allies with a new menace which they would have been incapable of dealing with effectively without this control exercised by the Grand Fleet over the German surface forces. Strategically the submarine campaign constituted nothing new, however novel the technical instrument with which it was waged. What was new was that the direct protection of shipping through convoy and escort, which in the old wars, as we have seen, protected it behind the shield formed by the battlefleet control of its opponent against the attacks of sporadic raiders, had not been instituted again at the beginning of the World War. The reason for this departure from the traditional form of commerce protection was the fact that the immense increase in the volume of shipping since the Napoleonic age was believed to have made such a proceeding out of question any longer. In the old days, when trade still consisted mainly of luxury goods which did not vitally affect the economic life of the country, it could be carried on in a few large convoys sent out two, three, or four times a year to the principal markets and often enough held up for many months at a time. In our days, however, the dependence both of the industry and the food supply of Great Britain upon a constant stream of overseas supplies was deemed too intimate to allow any longer for the interruption and loss of time inseparable from the organisation of that steady flow into convoys, while the number of escorts needed was believed to be far in excess of the limited forces available for that purpose. It was upon this lack of anything like the number of escort vessels needed, rather than upon the technical and navigational difficulties and drawbacks of the convoy system, that the Admiralty based its original refusal to reintroduce it; and it was only when it was realized that the estimated escort requirements were based upon an exaggerated assessment of the number of vessels entering the ports of the United Kingdom, and when American reinforcements became available, that the convoy system was at last brought into being in April, 1917 and within a few months succeeded in dispelling any danger that Great Britain might succumb to the U-boat menace.

Without, however, the indirect protection against the interference of German surface craft afforded to the whole convoy system through the

command exercised by the Grand Fleet from Scapa Flow, the task of finding the escorts would have been insolvable. It was only because they were not expected to deal with anything more formidable than submarines that the escorts could be composed of vessels (destroyers and small craft) so weak that they were available in the numbers needed, if barely so. If convoys had needed protection against cruiser attack as well it is difficult to see how that demand could possibly have been met.

The vital importance of this cover provided for the system of trade defence by the Grand Fleet is most strikingly exemplified by the repeated misfortunes which befell the one convoy, which owing to its course was but imperfectly protected by it: the Scandinavian convoy from Lerwick to Bergen running for the whole of its course not behind, but in advance of the Grand Fleet's position at Scapa Flow. It did indeed enjoy a considerable degree of protection from the various patrols scouring the northern half of the North Sea between its course and the bases of the German Fleet, but as events were to show this indirect protection was not sufficient to prevent German tip and run raids against it from succeeding. On October 16, 1917, two German mine cruisers *Brummer* and *Bremse* fell on the convoy and sank it to the last ship, including the two destroyers of the escort. The fact that after having raised the alarm they were able to make their way back unharmed from the latitude of Bergen to their bases over a course of some 500 miles through 80 British men-of-war hunting for them is a most striking testimony to the possibilities for evasion even in relatively so restricted waters as those of the North Sea. On December 12 of that year this exploit was repeated by the second torpedo subflotilla again sinking most of the steamers together with one destroyer and all the trawlers of the escort. After this second disaster the convoy, the point of departure of which was transferred from Lerwick to Methill in the Firth of Forth was greatly strengthened by the addition of a whole battle squadron to the escort, thus offering to Admiral Scheer an opportunity to cut it off with the High Sea Fleet, which he would have seized if the planned raid had not had to be postponed indefinitely at the last moment for other reasons.

The case of the Bergen convoy is frequently quoted as an example of the fact that fighting between commerce raiders and convoy escorts tends, by the gradual strengthening of forces on both sides, to bring about in the end decisive battles. Another and more impressive argument seems to the writer to emerge from it. It is, the utter viciousness of any system of commerce protection based not primarily upon the "command of the sea" but upon direct protection by escorts only; and the danger to which, in the absence of such fundamental cover, that system exposes every individual convoy of being overwhelmed by superior forces, a

danger which the mere strengthening of escorts, far from removing, merely tends to increase by offering an opponent in addition a chance of cutting up the main forces in detail as well.

In this sense the incident of the Bergen convoy—and the whole story of the World War—is an eloquent testimony to the fact that, despite all changes in their outer appearance, the fundamentals of naval strategy, as gradually disclosed by the accumulated experience of centuries, have in no way been affected.

THE CHALLENGE TO THE IDEA OF “COMMAND” IN THE POST-WORLD WAR I ERA

Not all those, however, who in the years since the war have tried to elicit its lessons, have come to this conclusion. The peculiar geographical conditions under which the struggle between the British and the German navies was waged—endowing the former with the full benefits of command of the sea without the need to acquire it by battle or close blockade—have tended to obscure and confuse the real issues to such an extent as to throw naval discussion into the most profound and far-reaching misunderstandings. Thus, the almost complete absence of great pitched battles in this particular case, and the insufficiency of the only one that did take place to affect the vital issue of the British control over the German Fleet and the Atlantic communications, has tended to mislead naval theorists into the utterly unjustified assumption that the role of battles and of all actions directed upon purely “military objectives” was played out in naval warfare, which would in future restrict itself exclusively to the economic issue of the “control of the vital communications.”

The real misunderstanding arose, however, when the fundamental role which the “command” had played in naval defence throughout history and again in the World War was so completely overlooked that this “control of the vital communications” could be erroneously identified with their direct protection by escorts and cruising squadrons pure and simple, and the struggle for exclusive command could be considered as a purely military action diverting strategy from its “true purpose” of trade warfare.

Thus there arose the truly paradoxical situation that this new movement, setting out to restore the true “maritime” character of naval warfare against its military misdirection by Mahan and his followers, in reality rejected the “fundamental principle of all naval warfare” in favour of a conception of naval strategy which ignored not only the whole experience of nearly five centuries of naval warfare, but the fundamental difference distinguishing naval from land strategy, revealed

by that experience. Nevertheless this new and revolutionary interpretation of naval strategy found its adherents in all navies and in particular in those of the lesser sea powers, France, Italy, Russia and Germany. For here another motive intervened which greatly helped to promote the spread of this new doctrine.

Whatever the merits of the "command of the sea" it was specifically a strategy in favour of the stronger belligerent, but left no hope to the weaker side. What, however, were those continental navies to do, which had little if any hope of ever finding themselves the stronger side in a naval conflict? Or did not this new doctrine hold out to them the hope that it might be possible to achieve at least the fundamental task of securing their own communications even though incapable of attempting to secure "command"?

These ideas have found their clearest and most extreme expression during the last few years in Germany—where the violent reaction brought about by the breakdown of the purely "continental" conception of naval warfare as a struggle for military supremacy between the two opposing fleets, with which the German Navy had gone into the World War, had paved the way for a doctrine which on the one hand presented itself as a return to the true "maritime" conception of naval warfare while on the other holding the prospect of achieving the maintenance of the vital Atlantic communications without the necessity for acquiring "command"—in two small publications, the article on "Naval Warfare of Tomorrow" by Captain von Waldeyer-Hartz* and a small booklet on *Modern Naval Strategy* by Ernst Wilhelm Kruse, a young civilian student of naval matters published in 1938.†

While Captain von Waldeyer-Hartz confines himself to a gratifyingly clear exposition of the main tenets of this new doctrine on general lines without reference to the particular case of Germany, maintaining:

that naval warfare in future was going to be directed primarily upon the economic breakdown of the enemy and not upon his military defeat;

that operations in consequence would be directed to the attack on the enemy's communications and the defence of one's own;

that great battles would no longer take place and that such smaller or greater clashes as might occur would arise out of the accidents of cruiser warfare, not, however, be sought on purpose for the acquisitions of a general "command";

that naval forces would, therefore, be widely dispersed and the

**Wissen und Wehr*, 1936, p. 183 ff.

†*Neuzeitliche Seekriegsführung*, Berlin, 1938.

struggle for communications be waged simultaneously all over the Seven Seas.

Dr. Kruse, rushing in where angels fear to tread, pursues the new doctrine to its utmost conclusions beneath a jumble of glaring contradictions and misstatements. Yet he is particularly interesting, for in so doing he provides a remarkable insight into the real problems—and very concrete issues—hidden beneath his apparent absurdities. Above all, he proclaims the revolutionary character of this new conception of naval strategy as the doctrine of the “semi-oceanic” Powers—liberating them from the domination of the classical theory representing the interests of the oceanic Powers (Great Britain, the United States and Japan) and for that reason inclined to stress the military side of sea power rather than its economic aspect, which these powers were glad to make use of but did not care to see turned against themselves. His vehement emphasis in so doing brings out very clearly what von Waldeyer-Hartz fails to express, that this new doctrine in reality covers not one but two fundamentally different cases, corresponding roughly to the offensive and defensive aspect.

There is first the case of a struggle between two such semi-oceanic powers, in which, in the absence of a sufficient superiority on either side to enable it to acquire total command, each belligerent would concentrate his efforts upon the maintenance of his own communications by direct protection, and confine his attacks to cruiser raids against his opponent.

Now the obvious conflict of that kind in the case of Germany, and the one which Kruse in addition makes perfectly clear he had in mind in this connection, would be a struggle between her and France, or France and Soviet Russia combined. Such a conflict between the French and German navies, however, would be fought out under conditions hardly less peculiar than those that determined the Anglo-German struggle during the World War. For, owing to the interposition of the British Isles (supposedly neutral) neither side could hope to undertake a decisive attack upon the other. German convoys could cross the North Sea at night and either reach British territorial waters or else the line Scotland—Bergen, and thence be conducted into the open Atlantic with its almost unlimited possibilities of evasion, with the result as Kruse puts it, “as if the mouths of Elbe and Weser were strategically projected upon the line Scotland—Bergen”; while the French Navy on the other hand would be able to hold her own against German commerce raiders in the Bay of Biscay. The remarkable manner in which, in this peculiar case, the form of naval strategy envisaged by von Waldeyer-Hartz and Kruse would indeed agree with the facts goes a long way towards explaining its reception in the German Navy; though it fails to justify its erection into

a general rule—even for the “semi-oceanic” powers alone. The case of an Italo-French conflict would obviously be governed by widely different considerations.

Infinitely more interesting, however, is the other case of a conflict between a “semi-oceanic” and a superior sea power. For here Kruse—while discreetly dropping the question whether in these circumstances the weaker power could still hope to fulfil the defensive side of its task—suddenly comes forward with nothing more or less than the startling suggestion not only that the weaker belligerent should concentrate upon the attack, but that doing so, he would actually enjoy a definite superiority over the stronger:

“In contrast to the conditions obtaining in land warfare,” he says, at sea the stronger side, because it is also normally in possession of more extensive communications, sees itself induced to remain strategically on the defensive, while the weaker party tends to favour an offensive strategy. In this relationship there is a change only if the stronger side should have no great and important communications to protect, while the converse would be true of the weaker side. The naval warfare of the weaker side—and herein is again found a peculiarity of naval warfare as compared with conditions on land—favours offensive operations against a defensive strategy to a remarkable degree, so that the weaker belligerent finds himself positively urged by it to take the offensive. The fundamental strength of the offensive in naval warfare lies in the fact that the attacker is able to concentrate his own forces for a blow against fractions of his opponents, without the attacked being able to ascertain betimes the direction of such a blow and to find the time needed to concentrate his forces in turn to parry it. Under the presupposition it is true, and this is the normal case, that the attacked party, the one which remains strategically on the defensive, is not capable of concentrating his main forces in protection of his vital communications to the same degree as was the case during the World War both with the British and the German navies.

This startling challenge to all the sacred doctrines of Sea Power cannot simply be dismissed offhand, however mad it may sound; for there is method in this madness. The picture of the uncertainties and dangers besetting the stronger sea power’s defence which he draws here is a true picture of what defence of trade would be like, if no “command of the sea” existed; the error begins only in the assumption that such “anarchy” is inevitable in naval warfare, and in the utter failure to perceive that it is precisely to meet such a situation as here depicted that Sea Power in the course of centuries has evolved the system of naval

defence through "command"; a failure, which goes back in the last resort to his association of "command" with the destruction of the enemy's forces in battle and the complete ignoring of the vital role played in it by blockade, which characteristically receives hardly any mention at all.

Yet the fundamental problem raised by him, although grievously mishandled, remains. If we are once more brought back to the fact that naval defence depends in the last resort on blockade, can blockade still be counted upon under present-day conditions?

We have seen that the problem of close blockade has found no clear solution during the World War, because the Grand Fleet, being able to exercise "command" without having to resort to it, preferred not to do so. Hence, although the general assumption to-day is that close blockade is no longer practicable, definite proof has not yet been adduced; while weighty voices have, on the other hand, been raised in warning against an over-hasty renunciation in this respect.

Undoubtedly the new factor introduced since the World War by the immense development of air power, has served to make the position of the blockader infinitely more difficult even than it had already become by the various submarine weapons. Yet here again the last word has not yet been spoken. It is quite possible that the strategic necessity of the blockade may bring forth such adaptations to the new conditions, as Admiral Castex's turtleback battleship which will enable the fleets of the future to come back again even to the close form of blockade.

Failing that, there still remains the looser form of strategic long range blockade to fall back upon such as it had been evolved during the World War both in the North Sea and the Adriatic. Yet, quite apart from its limited applicability, even the survival of this form, representing the minimum of hold upon an opponent sufficient to maintain "command," can by no means be considered as assured.

With the present development of aircraft even the farthest bases from which such a long-range blockade could be conducted lie well within the reach of enemy bombers. Thus the question, whether the bomber by making them untenable may directly bring down the whole system of naval defence through the impossibility of maintaining blockade, is likely to prove infinitely more important for the future development of Sea Power than the question of its capabilities for direct attack either upon the battleship or trade, which hitherto have almost exclusively received attention.

For the importance of the issues involved, as we have seen, cannot possibly be overestimated. If "command of the sea" has been the means by which sea power has hitherto been able to solve the problem of naval defence, it can to-day dispense with it less than ever before. For the almost incredible frictions, delays, and negligence of the enemy to use

his opportunities during the old wars, before this system of trade defence was brought into being, is something upon which it is no longer possible to reckon to-day; while the vital importance and the vulnerability of the overseas communications has increased a hundredfold. Therefore the suggestion seriously envisaged by some of the leading naval authorities of to-day of a return to the old primitive system of huge convoys protected by the whole battlefleet, in case the system of defence through command should definitely break down, although strategically sound, is economically hardly practicable. But it illustrates the vital importance of the "command of the sea" that it should have been raised again at all.

II

MAHAN AND WORLD WAR II*

A COMMENTARY FROM THE UNITED STATES

The passage of Mahan's centenary, on September 27, 1940, with hardly a word of commemoration, was not merely an accident due to the overshadowing influence of the present conflict, but the climax of a long process, which has been going on ever since the end of the World War.

To our fathers Alfred Thayer Mahan was a name to conjure with. The world's foremost authority on all matters of naval warfare and strategy, as well as one of the most brilliant and influential interpreters of contemporary developments, he was the writer in whose words that age found perhaps the clearest conscious expression of its aspirations, its problems, its ideologies.

To-day, less than a generation since his death, that influence has practically disappeared, and his name has become little more than a dim historical reminiscence. In the cynical atmosphere of "debunking" that became a fashion after the overheated patriotism of the war years, Mahan proved an obvious and admirable target. The economic school of historical interpretation, concentrating onesidedly upon his role as an advocate of Sea Power and of the "White Man's Burden," as the confidential adviser of men like Theodore Roosevelt and Lodge, falsely pictured him as an honest but irresponsible "incendiary," captivated by British Society and breaking down in the last days of his life under the realisation of the disaster conjured by his teachings.

Nor has he, *au fond*, fared much better even within his own profession. Outwardly, indeed, in the two great Anglo-Saxon Navies the glory of his name has remained unchallenged; his memory is still invoked on all solemn occasions and his teachings continue to be considered the foundation of official doctrine. But that invocation has long since become an empty ritual, and the glory, in the words of a well-known contemporary British writer on naval affairs, "is the glory of legend rather than of knowledge." In the development of present-day naval thought Mahan is no longer a living influence, and his voluminous

*Reprinted with permission from *Brassey's Naval Annual*, 1941.

treatises gather dust upon their shelves.* This is even more the case of the other navies, Italian, German, and Russian, where not even pretence at paying him lip service is maintained any longer, and Mahan is either dismissed as an outdated old fossil or roundly accused of having taught naval strategy onesidedly in favour of the two Anglo-Saxon Powers.

MAHAN'S LIMITATIONS.

For all this Mahan himself is not a little to blame. Taken all in all he was nothing short of a genius—perhaps one of the greatest, certainly one of the most original thinkers America has produced. The breadth of his outlook, the soundness of his judgment, the power of his intuitive penetration to the core of the vast and complicated issues, the elucidation of which had become his life's work, were extraordinary. No one could more ably illuminate, by the lightning-flash of a single felicitous term or sentence, a whole landscape of problems. There, however, his genius unfortunately stopped. With all his intellectual profundity Mahan was essentially an epigrammatic thinker. The individual, concrete, historical instance held all his interest. Theory to him was entirely subordinate to history; to the elucidation of concrete instances in the light of a few, a very few general considerations; or to the "ramming home" of such principles with a host of historical illustrations. The idea of abstracting these individual insights from their historical background and of integrating them into a systematic analysis of the whole complicated and paradoxical structure of naval warfare—as it was later attempted by Corbett in his *Some Principles of Maritime Strategy* and by Castex in his *Théories Stratégiques*† was wholly foreign to him. Even his famous lectures at the Naval War College were nothing more than a series of case-studies, strung together in a hardly perceptible general scheme; and when finally, towards the end of his life, he was induced to revise and publish them in 1911 under the title of *Naval Strategy* that task was so uncongenial to him that the result proved, in his own words, "the most perfunctory job I have ever done." So

*It is significant for this state of affairs that even in the United States, where alone Mahan's teachings are still used in the training of officers, his original lectures have been replaced by a collection of excerpts from his published works, which, whatever its excellence, cannot replace the living contact with even a single one of his writings taken as an organic whole. During the last few years a reaction in his favour has led to what has been described as the "rediscovery of Mahan" in Great Britain, noticeably so in Captain Puleston's enlightening biography, which for the first time places the study of his works upon a solid foundation, but this movement has to date not progressed far enough materially to alter the situation described above.

†Sir Julian S. Corbett, *Some Principles of Maritime Strategy* (London: Longman, Green and Co., 1918), Raoul Victor Castex, *Théories Stratégiques* (Paris: Société d' Editions, 1929-1935), 5 vols.

radically in fact was his mind opposed to any systematic co-ordination of his ideas that even on this occasion, when he was trying to reassemble them in what he clearly felt would probably be his "last word," he completely failed to integrate into the original body the long series of brilliant analyses and observations upon contemporary events which he had contributed, over a period of nearly two decades, to the leading periodicals on both sides of the Atlantic.*

This wholly unsystematic character of Mahan's late work renders its study peculiarly difficult. Before the student can hope to appreciate properly either his influence upon his own contemporaries or the relevance of his teachings to our own present-day problems, he must first attempt to condense into a clear-cut synthesis the profusion of brilliant inspirations which Mahan scattered so liberally through more than twenty large volumes, and by this process must endeavour to bring to light what he himself was groping for subconsciously but, for lack of any such systematic analysis, was unable to express clearly. In his influence upon his contemporaries, certainly what he failed to make clear was at least as important as what he said. What he stressed was, indeed, wholly correct and justified: the unique nature and advantages of Sea Power; its exceptional influence upon the balance of power both in peace and war, and its consequently beneficial effects upon national prosperity and progress. But he failed to make clear, or at least touched upon only by implication, the fact that all these advantages were the accompaniment not of Sea Power as such, but of *superior* Sea Power, and that in fact the fundamental difference between war at sea and war on land was precisely the utter helplessness at sea of the inferior belligerent *vis-a-vis* its opponent, as illustrated in the case of France during her long maritime struggle with Britain.

Again, in the application of his teachings to our own present-day problems, it is necessary for us to concentrate precisely upon those cardinal features of naval warfare which Mahan never adequately brought out, although they are implied in all his arguments: the peculiar difficulties of war at sea with respect to defence, the significance of the "Command of the Sea" and of blockade within the system of naval

*The result has been that Mahan's *Naval Strategy* (Boston: Little, Brown and Co., 1911) has not only completely failed to provide any analysis of the general framework of naval warfare, but practically omits even such cardinal individual aspects of it as for instance "blockade"; and this despite the fact that fifteen years earlier he had devoted to this particular problem an essay which still stands unique in naval theory, precisely because of its correlation of the tactical element of blockade with the general strategic problems of naval warfare. For a more detailed appreciation of the issue and of Mahan's contribution to its elucidation, see Chap. I.

strategy, and the bases of the peculiar faculty of Sea Power to intervene on *terra firma*.*

INDIVISIBILITY OF THE SEA

The obvious start of such an investigation of Mahan's doctrine of Sea Power must be the "nature" of the sea itself; its nature not as a physical phenomenon, but as a field of human and in particular of military action. Now the fundamental characteristic of the "Sea"—apart from its size and its "all embracing" distribution surrounding and separating the continents, is its "indivisibility"—the fact expressed by the old saying that "the sea is all one"; in other words that no part of it can be fenced off, fortified, and defended by itself, as a strip of land in dispute can be divided between two Powers, and that therefore its control can only go, as a *whole*, to one side or the other.

It is this impossibility of establishing a line of defence across the sea that constitutes the fundamental peculiarity of naval warfare, and confronts a commander at sea with problems and perplexities unknown to his colleague on land. There the normal situation between two opposing armies is one of more or less close contact, thanks to which the defender can frequently make a shrewd guess at the dispositions of his opponent, while the accidents of the ground, canalising any attack into certain predetermined channels, frequently enable him to concentrate his defence upon a few decisive lines and to strengthen it by the utilisation of suitable positions. Thanks to the general superiority of defence over offence in land warfare, even an outnumbered belligerent may thus—as the heroic example of the Finns has shown once again—hope to hold his own against greatly superior odds; interposing his army between his enemy and his country like a shield, in the secure knowledge that his opponent must either come to meet him with all the advantages of the ground against him, or else, if he should try to slip around his flank, would expose himself to all the dangers of a counterstroke in flank and rear.

At sea, on the other hand, all the conditions that on land tend to strengthen the defence *vis-a-vis* the attack are absent. No common frontier enables the defender to establish and maintain contact; no accidents of ground help to canalise his opponent's advance into predictable lines, nor to support him in making his stand. On the

*In view of the inevitable limitations of this study, it must confine itself strictly to the sphere of naval strategy proper; to Mahan's fundamental contribution to its theoretical elucidation, to the influence of his ideas upon his contemporaries and successors and to their significance for ourselves. The no less attractive and important issue of this role not as the founder of naval theory, but as an observer and exponent of his age, must be left to another occasion.

contrary, once on the open sea an attacker, thanks on the one hand to the mobility of ships and fleets, and on the other to the restricted range of vision and control as compared with the immense expanse even of comparatively narrow coastal waters, enjoys practically unlimited possibilities for evading the defender's forces and falling by surprise upon some part of his far-flung commitments. Incertitude as to the opponent's dispositions and movements is thus the normal and characteristic condition of naval warfare, the majority of all moves ending without any result and contact being established only at rare intervals and then often only for a few fleeting moments; while the peculiarly exposed character of the interests to be defended, scattered like shipping all over the sea or isolated like oversea possessions, instead of being concentrated behind the national frontiers, makes them particularly vulnerable to surprise attack. Thus, in an area within easy striking distance from both belligerents, naval warfare assumes more or less a character of anarchy, of chance encounters, favouring onesidedly the weaker of the two belligerents.

The only way, therefore, by which a Sea Power can hope effectively to protect itself against the dangers threatening it across the vast neutral common of the sea is through the elimination of the enemy from it altogether. This vital necessity of acquiring as quickly as possible "Command of the Sea"—either by destroying an opponent's forces through battle or, more frequently, by containing them in their ports through some form of more or less close blockade—forms the essence of Mahan's whole conception of naval strategy, running like a red thread through all of his teachings. Primarily and fundamentally it is a measure of *defence*; the expression, as Mahan formulated it on one occasion, of "the fundamental principle of all naval warfare, namely, that defence is assured only by offence"—a principle which Mahan, apart from this one occasion, did not emphasize with sufficient clearness. Only behind the fundamental screen thus established by the battle fleet against enemy intervention on the sea can home coasts and oversea territories feel safe from the threat of invasion, and movements across the sea, whether for trade or war, be reasonably secure against the danger of interception by superior enemy forces. But, owing to the "indivisibility" of the sea, such defence, in contrast to defence on land, is inextricably bound up with offence. The same "Command of the Sea," that opens up and assures the free use of the great world-wide common of the ocean to the defence, closes it to the weaker side altogether, leaving to it nothing positive to protect and defend and no other chance of retaliation than sporadic warfare against the enemy's communications by individual raiders or groups of raiders; a nuisance against which no "Command of the Sea," however complete, has ever been able to provide security and which at

times has reached serious dimensions, but which so far in the whole course of naval history has in the end always broken down before the superior grip of "Command of the Sea."*

OVERSEAS ATTACKS

Nor is this onesided superiority, conferred upon the stronger side in naval warfare by "Command of the Sea," confined merely to the naval sphere proper. On the contrary it is the most peculiar and outstanding asset of "Command of the Sea" that, in contrast to war on land, where even the most conclusive superiority, as in the case of Napoleon, is utterly unable to affect the situation on the Sea, it confers not only absolute superiority within its own sphere, but with it the power of interfering most effectively on land as well. In its immunity from counteraction and interference—an immunity to which war on land has no parallel to offer—it is free to choose its time and place at will. Assured of a safe line of retreat into which the enemy is incapable of following, the power that controls the sea can avail itself of all the ubiquity and mobility of sea power, of all the attacker's advantages of surprise and concentration to contain and distract vastly superior enemy forces with a minimum of its own. "With 30,000 men in transports in the Downs the British can immobilise 300,000 of my own" is a famous dictum of Napoleon, frequently quoted by Mahan, to illustrate the perplexity which the ubiquitous striking force of sea power, by its mere threat alone, could impose even upon so complete a master of the continent. Incomparably greater in dimension and effect than this method of "distractory" raids against the enemy's coastlines—which reached its apogee under the elder Pitt in the Seven Years' War—have been the great maritime campaigns in which sea powers, exploiting the superiority of sea over land communications, have been able to exhaust their opponent's vastly superior resources by forcing upon them campaigns in distant theatres of war, as Great Britain did to France in the Iberian

*This curiously one-sided character of "Command of the Sea" has in recent years tended to be obscured by the fact that the growing power of the land over adjacent waters (through coastal artillery, torpedo craft and planes) prevents the stronger Sea Power from pushing its forces as formerly right up to its opponent's coastline and permits the weaker belligerent to retain his control over his coastal waters and land-locked seas like the Baltic or the Adriatic. The impression so created of a juxtaposition of equal "command areas" based upon an equilibrium of forces and positions is, however, completely erroneous because fundamentally no such equilibrium exists; the weaker side's command over the local waters being strictly limited and purely defensive, unable to open for it a path across the sea for an attack against its opponents or any other territory and unable above all to prevent the latter from cutting it off from the ocean at large; whereas the stronger side, apart from this one local restriction upon the full use of its powers, enjoys the free use and control of "the Sea" with all its traditional defensive and offensive advantages.

Peninsula, and to Russia in the Crimea, and as Japan did to Russia in Manchuria.

Even more remarkable than this capacity of sea power to impose wholly disproportionate efforts upon its opponents by virtue of its superior mobility has been its power to interfere, directly and decisively, in struggles on land wherever they could be brought under the influence of naval gunnery. The role in the fall of Quebec of the small British squadron pushed under Saunders far up the waters of the St. Lawrence; that of De Grasse in the capitulation of Yorktown; the effect of Nelson's guns on the French advance in the Riviera in 1794, and that of his successors on the coast of Flanders 120 years later; the decisive influence in the war of 1812 of the control of the Inland Lakes by the diminutive squadrons of Perry and Macdonough, are outstanding examples of many different ways in which sea power has intervened in land operations, and of the far-reaching effects it has been able to exercise upon them. It was by these examples, in fact, that Mahan was able to demonstrate his great thesis so convincingly and it was to them that he lovingly returned again and again.

On the largest scale control of the all-penetrating and all-dividing medium of the sea enabled sea power to intervene decisively in the great struggle of the seventeenth and eighteenth centuries for the mastery of the overseas world. By cutting its opponents' communications with their possessions beyond the sea and by overwhelming the latter in detail when thus isolated and weakened, British Sea Power was able to overcome in succession its Spanish, Dutch, and French rivals. Not until it came up, in the American War of Independence, against an opponent, the roots of whose own strength lay overseas beyond its reach, was this practically uninterrupted career of victory stopped.

Thus in the combination of all these factors together, in immunity of territories and protection of trade, economic stranglehold, freedom of strategic planning, and movement across the sea and power to distract and to interfere with the enemy's action on land, resides the peculiar strength of sea power. Hence, the peculiar and unique weight which true sea power can cast into the balance of power; sea power not merely as the sum total of a country's assets at sea—navy, mercantile marine, bases, oversea colonies—but in the deeper sense, in which the word was originally coined by no less a one than Thucydides: *τό της Θαλάσσης κράτος*, the "Power of the Sea," the power which the sea confers upon him who knows how to conquer and to use it.

So great has this power proved itself again and again in the course of history, so hopeless have been the chances of weaker powers to evade or counteract its impact, that it has tended to throw its mighty shadow over the Continents even in time of peace. The noiselessness and speed with

which fleets can be mobilised, the ease with which they can be swung around from one destination to the other and their secret kept to the last moment—as Cromwell, without warning, turned against Spain the Fleet sent out, under Blake, ostensibly against France—the far-reaching effects which their mere threat has had on the affairs of the Continent, often dissolving hostile coalitions ere they had yet properly been formed, all these have combined to make sea power the instrument *par excellence* of diplomatic action and pressure. Thanks to it, Great Britain has been able for centuries to throw into the balance of European Powers a weight far beyond her resources in man-power and wealth, and to secure for herself the lion's share in the division of territories “oversea.”

MAHAN'S OVER-GENERALISATION

If Mahan had been satisfied with stopping here, his case would have been unassailable. Unfortunately, however, his enthusiasm for his subject, unchecked by any systematic analysis of its nature and implications, outran his critical sense and led him to jump precipitately from the demonstration of the remarkable influence of sea power upon individual concrete military and political situations, to sweeping general claims so broad and so vague as to be wholly unsubstantial and unwarranted. From an instrument in the hands of Governments, “Sea Power” under his hands became almost a force in its own right, a complete political and economic system, embracing and dominating the entire life of the State. Undoubtedly there was a grain of truth even in this conception, in particular for those periods and issues which formed the basis of all of Mahan's investigations and arguments, the late seventeenth and eighteenth centuries with their concentration upon mercantilist rivalry for the control of the overseas world. Undoubtedly his success owed much to the inspiration derived from this broader approach. But, just as certainly, it led him into gross exaggerations and downright fundamental misconceptions which, in the hands of less scrupulous disciples, were to create not merely confusion but serious error, and to end in bringing the whole of his ideas into undeserved disrepute.

Because of his acute appreciation of the vital role played by the sea in the economy of the world, as “the royal highway of nature's own making,” “nature's great medium of communication,” Mahan fell into the fatal error of appearing to make its peaceful utilisation dependent upon its military control, and of paralleling “control of the sea by maritime commerce” with “control of the sea by naval supremacy.” The result was that he obscured not only that, in his own age at least, the peaceful use of the sea was no longer dependent upon military power but

stood open on equal terms to all bordering upon it (even to such small nations as Greece and Norway, whose huge mercantile marines lacked the support of any appreciable naval strength) but also that as we have seen above, "Control or Command of the Sea"—consisting not in any physically impossible substantial occupation of "the Sea," its "reduction into possession" by any one power or group of powers, but in the temporary exclusion by a belligerent of his opponent from its use—does not and cannot exist except as an act of war.

Nor, unfortunately, did his error stop there. By the same vague general conception of sea power as the shield for all "oversea activities" of a nation, which led him unduly to stress the dependence of a mercantile marine upon a correspondingly powerful battle fleet,* Mahan was induced to make the conquest and retention of oversea markets dependent not so much upon the economic ability of the individual merchant as upon the power of his state to open and retain his markets for him by force. In this insistence upon the dark fundamental of force ultimately underlying all human affairs, and not least international economic relations, Mahan, as we to-day are perhaps better able to realise than were his earlier critics, was not so far from the truth. In the age of mercantilism from which he drew his inspiration, this state of affairs had indeed existed, and although mercantilism had since had to give way to the organisation of the world upon a predominantly free trade basis, his own age was unmistakably moving again towards a re-emphasis on the power element in international economic competition. His fault, or perhaps his misfortune, lay rather in the fact that by his authority he confirmed his contemporaries' belief in the inevitableness of such a development at a time when, as the British elections of 1906 were to prove, the force of the Free Trade movement had not yet been spent and, as we can see to-day, when economic rivalries, however influential, played a much smaller role in determining the action of statesmen and nations than most contemporary observers were inclined to believe.

This tendency of Mahan to interpret the complex situation at the turn of the century in the far simpler and in many respects misleading terms of mercantilist rivalry was all the more unfortunate in view of its influence upon that particular issue which, during that period, began

*In his *Naval Strategy* Mahan, under the impression of the remarkable development of the Russian Navy, despite the almost complete lack of a merchant fleet to back it, expressly renounced his original doctrine that a Navy was inconceivable without the basis of a powerful shipping industry; but he never seems to have envisaged the opposite proposition that a flourishing shipping industry was conceivable without the constant support of a Navy.

more and more to dominate the international scene, and contributed so decisively to bring about the final catastrophe in 1914—the rise of the German Navy and her consequent naval rivalry with Britain.

The profound influence of Mahan upon the development of German naval policy did not arise from his being more deeply studied or better understood in Germany than elsewhere. Both his adherents and his critics have vied with each other in creating a wildly exaggerated picture of his influence upon German public opinion, the German Navy, and above all the Kaiser himself, who indeed, in the words of his famous telegram to Poultney Bigelow, “devoured” Mahan with avidity, but completely failed to understand him. His influence is attributable rather to the fact that the peculiarity of Germany’s position within the circle of the major Sea Powers made her, or rather made the leading spirit of German naval policy, Tirpitz, particularly susceptible to the fallacies in Mahan’s arguments.

TIRPITZ’S LACK OF INSIGHT

It is one of the most peculiar aspects of the wave of naval re-armament which swept over all the great powers in that age, so onesidedly characterised as the “Age of Imperialism,” that despite constant association with the general scramble for oversea markets and colonies, in practice the various navies were determined far more by immediate and concrete necessities of power politics than by considerations of economic competition in peace. This was true not only of the British, the Japanese, and the Italian Navies, but to a hardly lesser degree of those other navies which, like the French, the Russian, and even the United States Fleets, were not absolutely indispensable to the maintenance of national independence. It was the peculiar and unique position of the German Navy that its rise alone was the result primarily not of the clear and indispensable exigencies of national self-assertion, but of far less cogent and incomparably more disputable considerations of imperialist economic rivalry. From the point of view of her position within the European balance of power, a navy strong enough to enable her to hold her own against the Franco-Russian combination threatening her from both sides would have been amply sufficient. But to Tirpitz this natural consideration became completely overshadowed by the almost panicky fear that the rising Anglo-German economic rivalry would increasingly dominate the relations between the two nations and lead the British to crush German competition by brute force unless he could succeed at the last minute in building up a fleet sufficient to deter them from that course.

This aim, however, immediately led him into a fatal dilemma that was to vitiate from the outset the whole of his policy. All other second-rank navies were at that time primarily concerned with opponents of equal or even inferior strength, over whom they could hope to achieve local superiority and "command": the Japanese with the Chinese and the Russians, the Russians with the Japanese, the United States with the Spaniards and the Germans. The German Navy alone was from the outset deliberately and exclusively pitted against the overwhelming superiority of the leading sea power, and devoted to the strategically hopeless task of "defending" German oversea communications and interests against it; a situation made all the more hopeless in view of the exceptionally favourable strategic position of Great Britain athwart all Germany's lines of communication to the open ocean, a position which made Germany's dependence upon her good will so particularly acute and galling.* As Mahan expressed it in one of his most brilliant flashes: "The dilemma of Great Britain is that she cannot help commanding the approaches to Germany by the mere possession of the very means essential to her own existence as a state of the first order"—and, we may add, to her national independence.

Whether Tirpitz ever completely realised this interlocking of German and British life interests must remain doubtful. But he certainly grasped another vital point in that issue, the fact that Germany's position, so near to the nerve centre of the Empire, with the leading Army of the world behind the Navy, gave her in her turn a power of pressure upon Britain, which judiciously exploited might help him to prevent the war politically which he could not hope to win militarily. By making the German Fleet so strong as to force the British to concentrate virtually all their naval forces in Home Waters in order to maintain the superiority indispensable to guarantee the safety of the Motherland, Tirpitz hoped to paralyse the British freedom of action to such an extent that they would be forced in the long run to capitulate before that threat, to renounce the two-to-one superiority they had hitherto claimed as the indispensable margin of safety over the navies within striking distance †

*Other great Powers like Russia shared that disadvantage with Germany, but Russia's sea communications were not as vitally important as were Germany's. The United States, on the other hand, though at this time an even greater competitor with Great Britain in the economic sphere, was by the advantage of its geographical position far removed from the area of British naval preponderance.

†The danger of the German Navy to Great Britain rested as much upon its propinquity to the British nerve-centre as on its actual numbers. That is why the simultaneous rise of the American and Japanese Fleets, although leaving the British by no means indifferent, affected their naval position so much less directly that they could disregard them for the time being and, in the post-war era, could concede to America the one-to-one standard, which could never have been conceded to Germany without placing Great Britain completely at the mercy of that Power.

and to accept German naval parity or practical parity. The misunderstanding of the British temperament and character in this overshrewd speculation was no more disastrous than this complete disregard of the fatally inferior position in which the German Fleet would find itself, if the British should fail to submit and should prefer to call his bluff.

The peculiar fallacy underlying that policy lay thus in the fact that, in order to ward off a danger which, if not wholly imaginary, was grotesquely exaggerated and, as we can see to-day, would in all probability never have materialised, it set out to create a challenge which, in the light of the realities of the strategic situation, it could not possibly hope to make good in earnest.* When, therefore, in August, 1914, the British declaration of war brought down Tirpitz's whole policy like a house of cards, the powerful Fleet which he had been building up for nearly two decades with such amazing organisational skill found itself hopelessly bottled up in the North Sea, unable seriously to affect the stranglehold of the British "Command of Sea" exercised by the Grand Fleet from the safe distance of Scapa Flow. Built and trained for battle within a radius of fifty miles around Heligoland, the German Fleet awoke too late to the fact that if the British did not choose to come and meet it there, it was powerless, with its inferior numbers and inadequate cruising range, to seek them out and challenge their hold over the decisive area between Scotland and Norway. Unable to maintain and protect the vital German lanes of communications to the open Atlantic, the German Fleet found itself thrown back on the desperate expedient of trying to lure parts of the British Forces into a trap by strategically pointless hit-and-run raids against the British East Coast.

POST-WAR ERRONEOUS CONCLUSIONS

The unexpected result of this complete collapse of Germany's pre-war naval policy, and of the fundamentally helpless position into which it had brought the German Fleet—a position which its leaders throughout the war endeavoured in vain to understand and grapple with—has been a complete and almost universal confusion of ideas on the naval side of the war. Impressed by the sight of the powerful German Fleet, the building of which had caused so much excitement the world over, lying for the

*It is impossible within the compass of this study to discuss the complicated issue of the evolution of Tirpitz's strategic ideas and to determine how far they may have been affected by Mahan's failure to bring out clearly the "onesidedness" of naval warfare and the hopeless position of inferior Sea Powers. A few indications of the problems involved can be found in Chaps. IV & V. Certainly the outlook of the German naval officers corps was fatally obscured (as Admiral Wegener, Tirpitz's outstanding post-war critic, pointed out in his *Seestrategie des Weltkrieges*, pp. 75-78) by their failure to grasp the implications of the fundamental difference between war on land and war at sea and their tendency to visualise the German Navy's position in terms of the familiar concepts of land warfare.

most part useless in its home ports, coming out only for furtive raids into the North Sea and unable to break the stranglehold of the British blockade that was slowly choking Germany to death, and yet on the other hand seeing the equal inability of the Grand Fleet to protect the British East Coast from bombardment; seeing, moreover, how completely the one great battle between the two Fleets failed to influence the general situation, public opinion—and unfortunately many naval experts as well—jumped to the wholly erroneous conclusion that the battle fleets had proved almost useless in the struggle.

In that conviction they were confirmed by the wholly unexpected and spectacular success of the submarine; overlooking the fact that even if the Grand Fleet had been unable to carry its “command” right up to the enemy’s coastline as formerly, and had been obliged to leave the southern part of the North Sea more or less to its German opponent, its control over the oceans had been as firm as ever before, and that it was this “command of the surface,” exercised by it, which had enabled the Allies to find the measure and ultimately completely to defeat the submarine menace.

If Mahan himself had lived through the war his powers of interpretation and his unrivalled authority would probably have enabled him to meet and stamp out such confusion, and to point out beneath the deceptive change in superficial appearances the substantial reaffirmation of the fundamental features of war at sea; but he had been called away in the very first days of that great struggle—and the years after the war were anything but favourable to his memory and his ideas. Under the influence of that great carnage the spirit of the age veered sharply from imperialist adventure to the dream of a new peaceful world order, from international anarchy to the League, from military rivalry to disarmament. And it was in the naval sphere that these new tendencies found their one signal success. Unfortunately, however, the attempt to resolve differences and rivalries not on the ocean, but around the council table, however great the momentary blessings which it conferred upon humanity, was not conducive to clear strategic reasoning. In the curious atmosphere of unreality that surrounded this period from the beginning to the end, political and strategic realities were thrust into the background by purely abstract considerations and utterly improbable hypothetical conjectures. To this general atmosphere, already sufficiently disconcerting to naval experts, was added the uncertainty as to the effect which the new weapons developed during the war, the submarine, the mine and above all air power, would have upon the future development of naval warfare. Small wonder that the period between 1920 and 1930 showed a decline of strategic thought such as the naval world had not known since the advent of Mahan.

When, from about 1930 onwards, naval ideas began to consolidate themselves again, the unity of doctrine, which under the influence of Mahan's writings had characterised the naval world to such an amazing degree before World War I, had given place to a split into two sharply opposed camps. On the one hand, the three major sea powers, Britain, the United States, and to a lesser degree Japan, each in its own way carried on the ideas expressed by Mahan, with the modifications necessary to adapt them to the changed technical conditions. Battle lines had become smaller, tactics more elastic, air power had changed the whole problem of reconnaissance; but the fundamental conception of basing naval strategy on the "Command of the Sea," if possible, by the destruction of the enemy's main forces in battle, remained unshaken. A particularly detailed and carefully reasoned expression of that outlook was given in France by Admiral Castex, who presented the five volumes of his great re-assessment of naval warfare, *Théories Stratégiques*, as an emphatic reaffirmation of the foundations laid by Mahan.

NEW THEORIES OF SEA WARFARE

Against this group there arose, however, in the "minor" sea powers, in Italy, Germany, Russia, and to some extent in France, a new school of naval writers, who, rejecting Mahan's doctrine of the "Command of the Sea" as onesided and outdated, sought to oppose to it their own new and revolutionary concept of naval warfare.

The emotional impulses which animated this revolt against the conception of naval warfare as a struggle for the "Command" were many and varied: in Russia the desire to emulate in naval warfare the revolutionary methods evolved on land during the Civil War; in Italy the traditional tendency to rely upon superior ability and manoeuvre to offset the deficiency in actual fighting strength, strongly reinforced by Fascism's cult of will-power, audacity, and astuteness; in Germany, finally, the grief over the defeat and the necessity of establishing a new basis for the reconstruction of the German Navy. In one point, however, all agreed: in the profound impression of the helplessness of the German Navy during the World War *vis-a-vis* its superior opponent and in the conviction, drawn from this example, that in such a case for the inferior sea power to struggle for "Command," which obviously was beyond its reach, meant merely to play into its opponents' hands instead of concentrating all efforts upon the point where they might achieve, if not victory, at least the maximum destruction, upon the attack of the enemy's lines of communication.

Unfortunately, however, in the atmosphere of wishful thinking and of resentment against the superior sea powers, resentment which had called

into being this whole "revolt of the Have-nots against the Haves in naval strategy," this simple and perfectly correct conclusion, to which Mahan himself could have subscribed, was enlarged to and confused with the wholly different and totally inadmissible claim, that under the impact of the new weapons, in particular of air power, the "Command of the Sea" could or would no longer be sought at all and that naval warfare would resolve itself into a mutual "attack and defence of trade" by means of convoy and cruiser warfare. These extreme consequences of this new doctrine of naval warfare were, however, so rarely expressed and were enshrouded by such a veil of more or less subtile ambiguities and misunderstandings, while the strong element of truth at the bottom of it appealed so strongly to the peculiar situation of such minor sea powers as Germany and Italy, that the whole, with all its inconsistencies, was swallowed by them, hook, line, and sinker, without so much as the slightest note of dissent.

WORLD WAR II

It is this struggle, no longer between two sea powers for the same objective, "Command of the Sea," but between two diametrically opposed systems of naval strategy, that constitutes the outstanding feature and the peculiar interest, of the present conflict. While the British have once again relied upon their traditional strategy of the "Command," their German and Italian opponents have persistently refused to play into their hands and to let themselves be drawn into any "ranged combat" in which they know they must succumb; concentrating instead all their forces upon the one task of striking at Britain's weak spot, her thinly-guarded lines of communication behind the shield of her battle fleets. In this they have been greatly favoured: first, by the great reduction in British forces compared with World War I; secondly, by the new weapons and methods of attack developed since that time; and thirdly, by the weakening of Britain's favourable geographic position as a result of the German aggressions and victories in the first half of 1940. In the Mediterranean, Britain's hold over her Italian opponent is indeed singularly facilitated by her control of the only two outlets, Suez and Gibraltar. In the north, however, the original favourable position has been profoundly altered to her disadvantage by the German conquest of the whole Atlantic seaboard from the North Cape to Bayonne; the tremendous extension of the area to be patrolled far outweighing the improvement of the British bases by the occupation of Iceland and the Faroe Islands.

The maintenance of the British "Command" in the teeth of all these obstacles is the dominant fact of the present conflict; an achievement so

overwhelming that it is difficult to realise its magnitude and implications. The technical dispositions and devices by which it has been carried through, the methods by which the British Naval Command is protecting its lines of auxiliary cruisers between Iceland and Scotland from being rolled up by superior German forces, or by which the blockade has been extended over the coasts of France and Spain, are necessarily shrouded in mystery; but the utmost daring and ingenuity in the co-ordination of old and new weapons and methods must have been required for their successful achievement.

A few dominant facts, however, stand out fairly clearly even at this stage. The fundamental role of the battleship in the establishment and exercise of "Command" has once again been reaffirmed against all its detractors. Even less than during the World War have naval battles been necessary to establish that "command" of the British battle squadrons over their opponents, but without their constant support and protection, the whole complicated system of British Sea Power would collapse overnight like a house of cards.

LIMITATIONS OF AIR POWER

The corollary of the persistence of the battleship has been the failure of the aircraft to drive it from the surface of the sea. So far at any rate the impact of the new aerial factor on naval warfare has succeeded in modifying certain aspects to a remarkable extent, but has utterly failed to shake its foundations. Over coastal waters aircraft operating at short range from land bases have shown themselves a most powerful and at times decisive factor. On the other hand, their successes against light vessels have been limited and against capital ships almost negligible; consideration must, however, be given to the fact that the accuracy of bombing ships seems to have increased markedly in the course of the war.

In contrast, the aircraft has shown itself a most useful instrument in penetrating to those regions closed, or practically closed, even to the ubiquitous submarine, as in the large scale British mining operations in the Baltic; and in particular has shown itself a successful commerce raider, either alone, or in conjunction with submarine and surface vessels.

On the other hand, in the field of reconnaissance the aircraft does not seem to have come up to the high expectations held before the war by naval opinion, at least if we are to judge from the apparently undiminished role which ignorance of the enemies' movements and chance encounters seem to have played throughout the war—in particular during the Norwegian campaign. In this respect, therefore, the fundamentals of naval strategy, as developed by Mahan, do not appear to have

been decisively affected, although aerial reconnaissance has undoubtedly played a great role in detail and greatly facilitated such delicate tasks as the rushing through of supplies from Italy to Libya.

What has the "Command" meant to Great Britain? There can be no doubt that at the head of this discussion we shall have to place the fundamental asset conferred by sea power, "immunity against invasion." That immunity may be qualified by the new possibilities of invasion through the air; it may be dependent upon the effective collaboration of a not too pronouncedly inferior air force; it may finally no longer be sufficiently assured to dispense with the need of a strong home force as a second line of defence; but one need only imagine the breakdown of that power for less than twenty-four hours in the Channel to realise what her "Command" has meant to Britain in this respect during the last terrible half year.*

SEA COMMUNICATIONS MAINTAINED

The second great advantage of the "Command" has been the maintenance of the British lines of communication. Thanks to the prompt imposition of the convoy system at the outbreak of the war and the high efficiency of British anti-submarine methods, tonnage losses during the first phase of the war were kept at a remarkably low level; low even considering the considerably greater pressure on British tonnage compared with World War experience. With the extension of the German bases, however, from the Heligoland Bight to the Channel and the Atlantic ports of France, and of air attacks upon commerce to the areas west of the British Isles, shipping losses during the last few months have risen to such an extent as to become a serious menace, unless new measures to cope with them can be found.†

In contrast to these marked successes of submarines and aircraft, the plans so triumphantly proclaimed by German naval writers just before the war for a wholesale destruction by Germany's three pocket battleships of British transatlantic convoys, forced together by the submarine menace, have definitely fallen short of both anticipations and fears. The cruise of the *Graf Spee* was completely barren in this respect and hardly more successful in any other; while the one case in which recently another pocket battleship actually succeeded in locating a British convoy in mid-Atlantic has been conspicuous chiefly by the limited damage inflicted even in the most favourable circumstances. Certainly, the distractive effect of these raids upon the British system of

*June-December 1940. Ed.

†Especially April 1941. Ed.

naval defence as a whole appears to have been far less, in actual practice, than was commonly expected before the war.

Far more successful than the pocket battleships, apparently, have been the armed merchantmen sent out by Germany to act as commerce destroyers, some of which appear to have made the Atlantic unsafe over considerable periods, while one at least has penetrated as far as the waters surrounding Australia and New Zealand. On the other hand, the use of the new bases on the Channel and Atlantic coasts for surface raids has fallen far short of what had been feared at one time, being restricted to cross-Channel raids by small torpedo boats (E boats) against British convoys at the mouth of the Thames, while large scale attacks by destroyer flotillas appear, with one exception, to have been noticeably absent.

On the offensive side the British blockade has had to cope with a host of difficulties and obstacles unknown during the last war. During that conflict Germany had found herself in a particularly disadvantageous position for resisting the interruption of her seaborne supplies by British Sea Power, being practically surrounded by an iron ring of hostile countries, and, moreover, seriously handicapped throughout by her total lack of even the most elementary precautionary provisions. This time, on the contrary, Germany's resources for more than six years have been systematically organised for just such an emergency, while every channel and loophole by which the blockade could be evaded has been explored—and exploited—with the utmost ingenuity. Moreover, by her lightning-like conquest of Poland she has succeeded in securing from the outset free access to the resources of Russia, as well as a by no means unimportant back door to the world through Vladivostok, while her conquests in the north and west have enabled her to overcome most of the deficiencies in her access to military raw materials.

On the other hand, however, all Germany's conquests have not availed to improve her food situation, but on the contrary have burdened her with a series of subject peoples, normally dependent upon supplies from oversea and further impoverished by the general disruption of agriculture through the war. Even if the British blockade has not been able to bring Germany to an impasse in the field of military requirements, this hold upon the German food situation is a factor of great and in the long run perhaps even decisive importance, which amply justifies the remarkable efforts made to maintain it.

The picture is far more confused with respect to the possibilities opened up by the British "Command" for direct military intervention on the Continent. In general there can be no doubt that the improvements in long-range gunnery and torpedo-craft of all kinds together with aviation have tended to strengthen the power of coastal defence against attack by

naval forces. In the words of Admiral Castex, the land has to some extent expanded its force out into the sea, at least its coastal waters. Above all, the supreme mobility of air power has tended to offset the superiority of fleets over land forces upon which, in the old days, so much of the distractive effect of sea power depended. As a result mere diversionary raids have almost disappeared, while landings on a hostile coast have become more and more difficult, as shown particularly in the case of Norway where even the co-operation of the population could not offset the advantage gained by the Germans in the first moment of surprise by the occupation of the key ports, coastal fortresses and, above all, aerodromes. The manner in which on this occasion the German High Command was able, thanks to its local superiority in the air, to make the small enclosed area of the Skagerrak untenable for Allied surface craft and to rush its forces across despite heavy losses by mines and submarines, was a most striking example of the extent which this extension of land over the sea may be able to achieve. On the other hand, both the evacuation of Dunkirk and the subsequent naval encounters in the Channel have shown that this is by no means the rule, and that normally with no more than equality of support from the air, naval superiority is still fully able to take care of and to assert itself.

NEW LIMITATIONS ON SEA POWER

The failure of British Sea Power to prevent the Germans from reinforcing themselves across the Skagerrak is, however, a striking example of the difficulties of sea power in achieving under present-day conditions that isolation of its objective upon which depended the success of the great maritime campaigns of the past, in the Peninsula, in the Crimea, and even more lately in the Japanese struggle against Russia in Korea and South Manchuria. That condition, unfortunately, exists to an incomparably lesser degree in the case of the new field of intervention on the Continent opened up to Britain by the Italian aggression on Greece. British "Command" of the Mediterranean, preventing the Italians from overwhelming Greek resistance from the sea, and forcing them instead to take the difficult road through the Epirus Mountains, has indeed so far been the cornerstone of the whole Greek defence. Once let the huge German war machine come rumbling down the Vardar Valley, however, and British Sea Power in the absence of a correspondingly large land force could not hope to prevent the continental parts of Greece from being overrun.

Here, in truth, we touch upon the heart of the present struggle. Hitherto the marked superiority of sea power over land power, which formed Mahan's great thesis, has rested, as we have seen, upon the

combination of two main factors: its immunity against attack and its power of intervention on the Continent, thanks to its superior mobility. The former, resting upon the very nature of naval warfare, has remained unchanged, however modified and qualified in recent years; the latter, resting upon the weakness of its opponent, has been profoundly affected by the incomparably more efficient organisation of land power in the course of the last hundred years. In comparison to sea power, whose characteristics have remained on the whole essentially unchanged by the advent of steam and oil, the mobility of land power has immensely increased by its successive adoption of the railroad, of automotive transport, and of the aircraft. That has not only had the most profound effects upon the immediate problem of coast defence—where even in the days of Moltke, the General Staffs felt capable of dealing with any landing, given a fairly effective railway net—but above all in the wider field of what one may call the “organisation of the continents.” Thanks to these wholly new means of covering space, there has arisen for the first time in history the technical possibility of organising and effectively controlling even the greatest land blocks, like the huge Eurasian plain from Hamburg to Vladivostok, while the striking force, speed, and range of modern mechanised armies and air armadas has in the last few years increased beyond anything ever imagined even in the wildest dreams. Thus the day may appear to have come when land power, having overcome its age-old lack of efficient organisation, can hope to turn the tables upon its opponent and, by the organisation of the whole firm land into a closely knit system, not only deny to it the indispensable weak points in which to insert its lever, but to hurl it back into the sea, wherever it may have gained a foothold on the continent.

This menace is all the more significant in view of the simultaneous change in the character of the British Empire and its immensely increased vulnerability to overland attack. In the seventeenth and eighteenth centuries, when the outlying British possessions in the East were relatively small footholds, threatened mainly by other European sea powers, but fully able to hold their own against the militarily ineffective despots surrounding them, the establishment of British “Command” in Home Waters could simultaneously protect both Motherland and colonies with a minimum of effort. Ever since the days of Napoleon, however, the threat of an overland attack against India, which all the might of British Sea Power would be powerless to stop, has hung like a nightmare over the Empire and has increasingly burdened and distracted its defensive effort, as on the one hand these outlying settlements pushed inland from their original coastal bases, and on the other mighty land powers, like Russia and Germany, drove their railroads across the Old World toward them. To-day when the driving power of the new super

war-machines has reached such unprecedented dimensions as to make the smashing of the intervening obstacles no longer impossible, Adolf Hitler may well think of taking up again in earnest the dream that led Napoleon to the banks of the Nile and did not leave him until his course had been run. Unless all signs fail, the present conflict seems well on its way to develop into that titanic struggle between land power and sea power for the control of the Old World, which Mahan foresaw at the turn of the century in his *Problem of Asia*.*

MAHAN'S WORK VINDICATED

Thus, from whatever point we consider the present great conflict, we are led back to the foundations laid with such brilliant foresight by Mahan half a century ago. Though many details have been invalidated or modified by developments he could not foresee, the core of his work, the analysis of the fundamental problems of naval strategy, which he was the first rationally to perceive and explore, has stood the test of time and adverse criticism, and has emerged triumphant. To reap the full benefit of his heritage, however, to separate the eternal from the transitory, and the essential from the accidental, will demand an intellectual effort of the very first magnitude. It is in the call to that effort that the true significance of Mahan's centenary is to be found.

*A.T. Mahan, *The Problem of Asia* (Boston: Little, Brown and Co., 1900).

III

THE EXPANSION OF SEA POWER IN WORLD WAR II*

The reaffirmation and expansion which Sea Power has experienced during the present conflict can be fully appreciated only against the background of the profound crisis through which it has been passing ever since the end of the last war. That struggle had, indeed, ended by confirming once more the strategic forms developed in the classical period of naval strategy. But the many novel and perturbing features which it had produced—the loosening of the grip of the blockade, the consequent strategic irrelevance of so much activity in the North Sea, including the single large scale fleet action that had occurred, combined with the shock which the challenge of submarine warfare had given to the traditional conception of the “Control of the Sea”—left a widespread feeling of uneasiness and a suspicion that beneath the apparent continuity of forms Sea Power might be on its way to profound transformations of which nobody could foresee the outcome. Above all, the surprise of the submarine, although it had eventually been mastered, had served as a most vivid reminder that the apparent consolidation of technological development since the 1880’s and 90’s had been but a temporary phenomenon and might at any time give way to wholly novel and revolutionary developments.

These revolutionary changes were feared, not so much on the side of the submarine, which throughout the period tended rather to be regarded with unjustified complacency, as on that of the aircraft—a wholly new weapon, which, unlike the submarine, had not really come to a serious test of its possibilities. The sweeping claims of its adherents to sink any man-of-war “at sight” were not conducive to a clear and calm examination of the issue, leading by their very exaggerations to an undue reaction in the opposite direction. Nevertheless they left a pronounced undercurrent of uneasiness and tended to strengthen the wide-spread criticism of the traditional methods of naval strategy developed by various schools from the indeterminate experience of the First World War.

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Such criticism questioned both the continued efficacy of the methods by which the stronger Sea Power had so far been able to impose its control over its weaker opponent, and its ability to protect its lines of communication behind such a covering screen. The greatly loosened system of blockade employed by the Allies, it was alleged, had been made possible both in the North Sea and in the Atlantic only by the exceptionally favourable geographical configuration which might not recur elsewhere, or might break down altogether under the increased impact of air power. Even if the Fleet were not blasted off the surface of the sea, it might still be forced to open its grip simply by making its bases untenable. And even if the battle fleet's grip itself remained unbroken, it might be successfully circumvented by a renewal of submarine warfare combined with attacks by powerful surface raiders, as well as long-range bombers—all the more so since the convoy system, readopted against the submarine, was believed to play directly into the hands of the two other forms of attack (Castex). If the system of "Command" did not break down altogether under this double menace, its offensive stranglehold on landpower would certainly be weakened.

These "technical" perplexities of naval strategy were still further accentuated by the unprecedented extension of its commitments and the simultaneous emasculation of forces to deal with them. During the old wars of the sailing ship era these problems had been singularly simplified by the fact that all the great sea powers had the home bases of their strength within a narrow area in Western Europe. Thus the strongest among them, Great Britain, was generally able to concentrate her main defensive and offensive effort into the single task of establishing her "command" within a few limited areas—the Channel, the Bay of Biscay and the Western Mediterranean. Such concentration became more and more problematical when with the expansion of Western civilisation over the globe new centres of Sea Power sprang up in far distant zones in the United States and Japan. For the time being, however, the distractive effect of this development was neutralised by the political arrangements which during the First World War brought both of them to the side of the Allies, with the result that this conflict was once again fought out along the traditional lines: control of the enemy's main concentrations within two narrow coastal seas, the North Sea and the Adriatic, ensuring a world-wide control of the sea. With the end of that conflict, the attempt was made to solve the problem by a peaceable division of spheres of naval preponderance between the three leading sea powers. The break-down of that arrangement from 1931 onwards left the two Anglo-Saxon sea powers not only with unprecedented world-wide commitments, but with forces that had been reduced below any reasonable margin.

These real or presumed perplexities of Sea Power were eagerly seized upon by a number of naval writers, particularly in Italy and Germany, who sought to base upon them a new strategy of the "inferior sea Power": the Power that could not hope, herself, to acquire "control of the sea" and, therefore, should deliberately renounce the struggle for that unattainable aim in order to strike all the more surely at the chinks in her stronger opponent's armour. Such had been the basic idea of the French *Jeune Ecole*, but it had been swamped under the indiscriminate wave of enthusiasm for the "command" that followed the publication of Mahan's great works. Now the realisation of the fatal diversion and dissipation of German naval strategy during the First World War, resulting from the blind adoption of these ideas, gave it a new and greatly increased impulse. The peculiar conditions under which it arose made this critical re-examination of the nature of "Sea Power" and of "Command" on the part of the representatives of the Minor or Continental Sea Powers anything but objective or complete. Frequently, it merely served to replace an old error by a new one. But, with all its defects, it did give them an incomparably clearer grasp of the issue and of their own possibilities than ever before, and, through the deliberate challenge contained in it, added its part to the general crisis of Sea Power.

THE STRUGGLE AT SEA

These accumulated difficulties and incertitudes hung like a heavy cloud over Sea Power when it re-entered the arena in September, 1939. To the burden of world-wide commitments and inadequate forces was added the further burden that nothing was *quite* certain, neither instruments nor methods; and the absence of any reserves left—unlike the First World War—no margin for undue surprises, errors or experiments. Happily, not all the dreaded potentialities materialised, not all of them to the full extent feared, and not all at once. But their shadow hung over the decisions of those in command as perhaps never before in the history of Sea Power; and without it neither the picture of its crisis in this its greatest struggle nor that of its eventual triumph would be complete.

Yet the situation that faced the Allies when the war began appeared superficially by no means unfavourable. The conflict remained restricted in the main to a single theatre, the North Sea and Atlantic—the Mediterranean being watched only by a token force—and the overwhelming superiority which the Allies enjoyed over Germany in heavy ships could to some extent compensate for their weakness in other classes, in particular all types of "escort

vessels.”* Above all, the Home Fleet promptly reimposed its control without being blasted out of the water by the *Luftwaffe* or—except for the sad loss of the *Royal Oak* owing to the delay in completing the anti-submarine defences of Scapa Flow—suffering any major mishap by U-boat or air attack throughout these years. When in the summer of the following year the successive German occupation of most of the Atlantic coast of Europe threatened to break its grip upon the continent, it was able to maintain it in new and more elastic forms with the help of the new air instrument. From the outset, however, it was apparent that the real menace of the German attack would be directed not so much against the Allied system of cover as against their lines of communication behind it. Starting slowly and none too successfully during the first nine months, the onslaught rose steeply after the fall of France until the Battle of the Atlantic became the greatest as well as the most vital single issue of the conflict. The success of the Allies in overcoming that onslaught was due in part to the fact that the most dangerous menace, the powerful surface raider, fell far short of what had been hoped, or feared, from it; and, after scoring a few brief successes in the autumn of 1940 and the spring of 1941, when the exhaustion of the Royal Navy’s resources forced it to reduce convoy protection at times to mere token escorts, was signally eliminated with the *Bismarck*. In part it was due to the fact that, contrary to pre-war expectations (Castex), the form of defence that proved effective against the submarine proved equally so against attack from the air, which for over a year after the fall of France had assumed in the Atlantic proportions by no means negligible. The struggle reached its climax when, after the entry of the United States into the war, the attack first passed over to the other side of the Atlantic, and then from the two terminal areas began to cover the entire crossing; concentrating upon the central stretch, which hitherto in naval warfare (including the last war) had been relatively immune, but now, because of the difficulty of patrolling in the air, became the chief danger zone. With the development of very long-distance aircraft, the acquisition of new bases, and the placing into service for the first time of really adequate escort forces, including in particular a large number of the new escort carriers, mastery was finally obtained in the summer of 1943.

In contrast, in the Mediterranean the fall of France left Italy in a position of such superiority in the surface forces, air power and bases that the continuous use of that seaway for ordinary purposes became impossible, and Sea Power had perforce to concentrate upon the task of

*Thus during the first two weeks of the war the aircraft carriers were employed on antisubmarine hunting in areas dangerously open to U-boat and air attack, resulting in the loss of *Courageous*. Later on, from October 1939 to January 1940, five of them were employed on trade protection and the search for enemy raiders throughout the Indian and Atlantic Ocean.

preventing the Axis from dominating that vital lane. While Sea Power maintained the Allied ground and air forces in North Africa and the Near East, it kept Malta in action by throwing in supplies from time to time, though at an ever increasing cost; thus enabling the air and submarine forces operating from there to force the Axis supply ships to detour within reach of Allied Sea and Air forces operating from Egypt—a co-operation of all services which was most signally apparent, and most successful in the critical weeks preceding the battle of El Alamein, which with the landing in North Africa decided the Mediterranean struggle.

However successful in this objective, British naval strategy in the Mediterranean was unable to break down the persistent Italian refusal to jeopardise the containing effect of their fleet by exposing it to the chances of battle; and therefore, tied down as it was both in the Atlantic and the Mediterranean, was unable to free adequate forces against the third and most powerful foe in the Far East. The destruction of the *Prince of Wales* and *Repulse* coming almost simultaneously upon the incapacitation of the U.S. Pacific Fleet at Pearl Harbor, marked the ebb of Allied strategy. The holding of the Central Pacific line in the East and of the Ceylon-Madagascar line in the West was the turning of the tide, enabling the Allies to contain Japan within her area of preponderance and to organise their own global strategy upon the isolation of their two opponents and the concentration of the emphasis upon the western group.

THE DECISIVE IMPORTANCE OF SEA POWER

Thus one of the outstanding revelations of the present conflict has been the degree to which the stature of Sea Power has been enhanced through the expansion of the war to global dimensions. Even in the incomparably more restricted conditions of former struggles the influence of Sea Power was seldom negligible as in 1870-71; it was generally vital, and often decisive. Now, with the extension of the war to the four corners of the earth and the development of warfare to its present tremendous scale in men and equipment, control of the great, all-surrounding medium of mass movement and mass transportation has become, together with the necessary equipment to exploit it, the absolutely indispensable prerequisite of any world-wide combination. In global war, merchant shipping is the ultimate key to strategy.

Indeed, Sea Power has only now truly come into its own. Just as the fusion of the world into a single strategic chess board has for the first time brought out the full significance of the all-surrounding and inter-penetrating unity of the sea against the isolated and divided continents—the fact that in the words of the old saying, so often

misquoted and derided, "The sea is all one"; so it is only on such a global scale that Sea Power can reap the full benefit of its peculiar assets—its ability to isolate its opponents and support its allies; to impose disproportionate and often disastrous effort upon its enemies by the mere threat of its ubiquitous striking power; and in its turn concentrate overwhelmingly superior forces against the isolated fractions of its opponents.

Yet, even these two factors—the decisive importance of controlling the great medium of mass transportation in global warfare and the projection of the traditional advantages of Sea Power on to a world-wide scale, do not yet suffice to explain the extraordinary increase in the significance of Sea Power in the present conflict. As the global extension of the field of combat has moved the sea, or at least certain decisive areas of it, from the periphery into the very centre of action (global strategy); Sea Power has been promoted from its traditional role of "keeping the ring" to a function of direct, decisive intervention into the most crucial strategic issues themselves. The outstanding example of this phenomenon has been the struggle against Japan, in which the oceanic nature of the main theatre of war has made the decisive campaign itself, and not merely its preparation and supply, a matter of Sea Power—and on which even the re-opening of a concerted drive on land, through the reconquest of Burma, is decisively dependent upon control of the sea.

Even more significant perhaps, though less grandiose in scale, is the other outstanding instance of the direct intervention of Sea Power into the major strategy of the present conflict: in the Mediterranean—particularly in view of the obvious comparison with former conflicts. As every student of naval history knows the role of the Mediterranean in the evolution of Sea Power has been second only to that of the Narrow Seas. For more than two centuries it was the springboard from which the Sea Power of Britain could make its mighty lever felt in the affairs of the continent. And yet this intervention, highly effective as it was, was mainly indirect and peripheral: the bombardment—or threat of bombardment—of coastal towns and ports, the interruption of sea-borne supplies, at the utmost the imposition upon the enemy of a wasting war of attrition in an eccentric sector of his domain (Spanish Peninsula, Crimea). For all these struggles were confined to the continent of Europe itself, and were decided in the valleys of the Rhine and the Danube, difficult for Sea Power to affect even indirectly, or in the Catalonian or the North Italian Plain. Once only in the course of all these conflicts was a determined effort made to project the struggle beyond the confines of the European continent, across the Inland Sea into the great strategic crossway of the Old World, where the North African strip meets the Near East—by the genius of the great Corsican.

The renewal of that attempt by the Axis in the present war with incomparably stronger resources and incomparably greater chances of success, strikingly illustrated both the importance of that decisive water line in global strategy and the immensely increased significance of its control by Sea Power. Thus Sea Power far from finding itself reduced, as some have suggested, to the subordinate, if indispensable, role of a mere carrying agency, a "transport industry," has in the present struggle risen to an unprecedentedly direct, decisive intervention in the crucial strategic issues themselves. It is not only the handle of the new trident of power, it is in the fullest sense one of its very prongs.

It has become so, however, through the resolute refusal to consider the suggestion, put forward by several interested parties both before and during the present conflict, that its field of action should be restricted to the High Seas, leaving the coastal zones—the famous *Vorfeldzonen* of German Naval Theory—to the reign of the aircraft, possibly assisted by the motor torpedo boat and motor gunboat. It should hardly be necessary to explain that such a "division of spheres," however attractive on paper, would in practice prove not merely crippling to Sea Power, but utterly unworkable. For a Sea Power hovering on the High Seas, but incapable of approaching any hostile coast within range of dive bombers, would be no Sea Power at all.

The true and ultimate test of the capacity of Sea Power to discharge the traditional functions and to assume the new and vastly increased obligations that have fallen to it within the new pattern of global strategy, has been precisely its capacity to maintain itself without catastrophic losses—under adequate aerial protection—not only within narrow, land-locked waters, but in prolonged operations off the enemy's coast in the teeth of powerful air concentrations. In the amphibious operation off Salerno, the outstanding instance to date, this problem was met by a highly complex arrangement, under which land-based fighter planes operating from aerodromes in Sicily gave general cover to the naval forces engaged, including the battleships *Rodney* and *Nelson* and the two large carriers *Illustrious* and *Formidable*, while aircraft from the latter in their turn protected the five smaller escort-carriers farther inshore, thus enabling the latter to release their own fighters for patrol work over the beachheads themselves.

Such elaborate machinery, however, inevitably implies a very marked restriction of the freedom with which Sea Power could formerly transfer its attack to practically any sector of the enemy's coastline—not only because of the time and effort needed to mount it, but, above all, because of the limitations imposed by the need of keeping within range of land-based fighter cover. It will be of the utmost importance to Sea Power, and with it to global strategy, to determine whether the greatly

increased number of carriers together with the steadily improving performance of fighters will in the end enable it to achieve reasonable protection with the latter craft alone, thus releasing it from the most serious of its present limitations.

THE MODERNIZATION OF SEA POWER

No less remarkable than this expansion in the scope and significance of Sea Power has been the transformation of structure and methods which has accompanied and made it possible. It is a matter of common knowledge to what an extraordinary degree Sea Power in the course of these last years has come to enlist the support of the aircraft, not only as a protective screen against its own kind (as at Salerno),* but equally so as a most successful antidote to the submarine and a powerful increase of its own striking force against any type of enemy vessel.

This wholesale integration of the air factor into practically every aspect of naval warfare—operations and tactical methods, minelaying, blockade, and escort duty—has profoundly modified the structure and methods of Sea Power and raised a host of difficulties of organisation and co-ordination which are now in process of being ironed out. But most of these modifications have after all only affected the externals of Sea Power. Only two of them have touched its innermost core, its fundamental structure—aerial reconnaissance and, to a lesser degree, the restricting influence of the land-based bomber.

Aerial reconnaissance can be described without exaggeration as perhaps the most revolutionary innovation Sea Power has experienced in the entire course of its more than 2,000 years of recorded history. For all other changes have affected naval warfare only indirectly, by altering or affecting the tactical or operational properties of the ship; whereas aerial reconnaissance has struck directly at the central issue which over so many centuries has perplexed and preoccupied the masters of naval strategy: the difficulty of tracing an enemy once he has gained the open sea. As long as organised naval warfare has been in existence, that

*The importance of fighter cover (carrier-borne or land-based) in naval operations should not, however, obscure the tremendous advantages made in anti-aircraft armament since Pearl Harbour. In the case of some up-to-date battleships, the increase in volume and accuracy of their anti-aircraft fire has been such that they have not only shot down enemy planes by the score, but have even been able to provide protection to their own escorting carriers; thus releasing the latter to a considerable extent from their defensive duties and enabling them to devote themselves to a large extent to offensive action. Nor do the lighter vessels appear to have been any less successful. Particularly interesting in this respect is the fact that in the course of the last year even the submarine, formerly the type of craft most in dread of the airplane, has preferred to remain on the surface and fight out a gunnery duel in which, despite its poor qualities as a platform, it appears by no means always to have come off second best. According to the most recent statements, however, this attempt seems to have come to an end.

incertitude has been the fundamental problem of naval warfare, the factor which above everything else has distinguished it from war on land and which explains the widely different strategic forms which it has adopted. The whole of naval history from the sixteenth century onwards is nothing else than the attempt to cope with that perplexity, growing ever greater, in proportion as the extension of the theatres of combat and the increase of sea-borne traffic increased the necessity of establishing control over one's opponent. The system of close blockade, inaugurated in the Seven Years' War by Hawke and brought to its supreme pitch of efficiency at the time of Britain's struggle against the Revolution and Napoleon, was the first great answer to that problem. When the ever-increasing range and striking power of the mine, the torpedo-boat, and finally the submarine made its application no longer possible, it was replaced by the looser form of control exercised by the Grand Fleet from Scapa Flow. And now with the breakdown of this looser form of control through the German occupation of Norway and the greater part of the Atlantic coastline of Continental Europe, aerial reconnaissance has stepped on to restore the grip of Sea Power over its opponent more securely than ever before.

Not that aerial reconnaissance has proved itself a panacea, an instrument without fail under all conditions. It is as yet only in the beginning of its development, and will always remain subject to the general limitations of aircraft. But, even with all these temporary or permanent qualifications, and even though its full consequences have not yet been developed, the change it has introduced into the conduct of naval operations is already so profound that it must be considered as a qualitative change rather than a mere quantitative expansion of former methods.* Thanks to this instrument the naval commander to-day for the first time enjoys something of the same grip on the strategic situation which his luckier colleague on land has enjoyed all along. Only through aerial reconnaissance has the shift from the control of relatively narrow coastal water to that of such vast areas as the entire North Atlantic or of the Pacific and Indian theatres of war become possible.

The detailed analysis of the transformations wrought by air reconnaissance in the fabric of naval strategy must wait until the pertinent

*In fairness to aerial reconnaissance one should measure it not against an unattainable standard of 100 per cent, perfection, but against the previous state of affairs. Only then will the radical character of the advance become apparent. Thus its failure to detect the sortie of the *Scharnhorst* and *Gneisenau* appears in a different light if we consider that the escape of single heavy raiders has been a problem with which naval strategy in the past has never been able to cope effectively. Likewise, the outstanding significance of the detection of the *Bismarck* and of her re-discovery after contact had been lost, stands out all the more impressively. And similarly with other instances—Admiral Somerville's undetected approach in the bombardment of Genoa, as well as various instances in the struggle in the Pacific.

facts are no longer shrouded in secrecy. One aspect, however, is so obvious and has emerged so clearly even from the fog of official communiques that it deserves at least a brief mention: namely, the extraordinary degree to which the loosening up of naval strategy through aerial reconnaissance has favoured the general tendency of modern naval warfare towards increasing flexibility of its tactical, operational and strategic forms. Just as in the tactical sphere the massed battle and destroyer squadrons of the last war have been broken up into the present elastic mixed groupings of battleships, carriers and lighter craft, so the loosening of the control system has tended to replace the former clear-cut distinction between "cover" and "escort" forces with an incomparably more fluid system, first clearly emerging in the chase of the *Bismarck*, under which—as was shown by the crushing concentration assembled on that occasion out of capital units spread all over the Atlantic—the same forces may be called upon to serve alternatively in one function or the other.

However characteristic this tendency towards greater elasticity of forms and forces must appear, it would be an error one-sidedly to overstress it. It has not led to the abolition of all concentrations, neither on the Atlantic—where the Home Fleet has tended to preserve a powerful nucleus—nor in the Mediterranean, and least of all in the Pacific—where the inconspicuous yet unmistakable influence exercised by the bulk of the Japanese Battle Fleet behind the screen of peripheral clashes may well lead in turn to even stronger concentrations and thus to the large pitched battles, the total absence of which has thus far been one of the most remarkable features of the present struggle.

This silent influence of the opposing main forces, combined with the restrictive power of the land-based bomber has produced that other remarkable phenomenon of the present conflict—the division of the Pacific into two separate spheres and the concentration of the battle for its control into a grim struggle for a few vital island footholds where the two peripheries meet. The impossibility of facing the enemy's main strength deep within his own sphere of naval and above all aerial preponderance far from one's own bases; the necessity, therefore, of moving forward step by step, neutralising the enemy's island airfields by even stronger concentrations of one's own air power brought up to within striking distance—these factors have here produced a wholly novel kind of amphibious warfare, waged as much with land and air as with naval forces, contrasting most strangely with the broad sweeping movements we have been witnessing in the Atlantic and Mediterranean, and yet constituting only another aspect of the evolution of modern Sea Power into an intricate system of all forces revolving more closely than ever before around its bases.

Both the heavy bomber and the long-distance reconnaissance plane, neither of which can be operated from carriers, have tended to emphasise this dependence of Sea Power upon its footholds still further until we find it—most characteristically in the Northern Atlantic—resembling a huge net in which the temporary or permanent bases form the knots between which ships and aircraft weave the elastic strands of Sea Power.

CAPITAL SHIPS OR CARRIERS?

If Sea Power has thus to-day expanded into a highly complex structure in which the contribution of the air component is already every whit as important as that of the surface and sub-surface vessel, the question inevitably arises: Can this process go still further? Can the land-based plane perhaps eliminate the surface ship (and with it the carrier-borne plane) and carry on the work of Sea Power alone?

The attempt to answer this question makes it necessary to go back once more to the fundamental characteristics of naval warfare. For the acquisition and exercise of the control of the sea—as so many recent critics tend to forget—is not a series of unconnected actions, but a vast systematic drive, a long, laborious process, in which the individual moves require more continuous, steady effort than perhaps any other form of warfare. An army or air force unit is normally in action either by day or by night, rarely through both and never over a prolonged period. A man-of-war on one operation or “merely on escort duty,” on the other hand, finds itself “on duty” twenty-four hours a day for weeks at a stretch, night and day, in every kind of weather, good, bad, indifferent—or hurricane.

Such exacting and continuous service in the teeth of all the forces of nature and of every conceivable form of enemy action, requires not only extreme endurance, dependability under all and every condition, capacity to carry through all the manifold tasks that may present themselves, but above all, the best possible balance of offensive and defensive strength. This is above all true of that class of surface vessels upon which, in the last resort, the entire system of Sea Power (and of global strategy) rests: the capital ship. The capital ship's role as the cornerstone of naval strategy is founded—even more than upon its capacity to master any opposition—on the ability to stand up under the strongest blows that can be brought to bear against it. Only so long as the capital ship is able to give reasonable assurance of such ability is planned naval strategy—and with it control of the sea—possible.

That is the reason why the carrier, for all its invaluable work both in task forces and above all on escort duty, is unlikely ever to replace the capital ship as the “backbone” of naval strategy. Not only is its offensive

power “freakish,” depending, unlike the shell, upon instruments subject to incalculable influences; above all, its wholly disproportionate incapacity to withstand attack of any kind disqualifies it for that fundamental role. Yet, with all these deficiencies, the carrier remains a sea-going vessel, sharing the general qualities of such craft and thus imparting some of them, notably its endurance, and power to follow prolonged operations “on the spot” to the aircraft which it carries. It is only when we contrast the surface vessel with the *land-based* plane that the difference in their properties and hence their respective roles in the fabric of Sea Power become plainly apparent. The vastly superior mobility and range of the aircraft make it, as we have seen, a unique instrument of reconnaissance, both tactical and above all strategic, as well as an extremely powerful weapon of offence against any type of craft—in many respects superior to the gun, although somewhat less reliable. On the other hand, its limited endurance, inefficiency at night and greater dependence upon the weather, handicap it in the discharge of those protective duties which form by far the major proportion of all the work of Sea Power. Moreover it is not the equal of the surface ship in certain essential tasks (rescues) and is wholly unable to perform others (mine-sweeping).

For all these reasons it is still the surface ship that has to provide what one might call the “basic framework” of Sea Power: to ensure the continuity of protection throughout the individual operation as well as to maintain the general system of cover upon which the ultimate security of the whole rests. Nor does it seem that the aircraft will ever be in a position to replace it in this function, even if the attack should be confined to the air alone. In fact, if the aircraft at any time should prove permanently unable to support the heavily protected man-of-war against enemy air assaults, it would seem *a fortiori* unlikely that it would continue to be able to shepherd the incomparably less well-armed, unprotected, as well as slower merchantman across the sea. In that case we should find ourselves in the curious position that whereas aircraft would be able to deny the use of the sea to the enemy they would be unable to assure it to their own side. The result would be a world in which the sea would indeed have become a no man’s land, and the isolated continents would find themselves reduced to exchanging blows with each other by superbombers at 3-6,000 miles range. Whether such a state of affairs—if it ever should come about—could be considered advantageous from anyone’s point of view is a matter on which opinions are likely to differ. One thing, however, seems certain: that this country at any rate would find it singularly difficult to continue to exist under it.

IV

GERMAN THEORIES OF SEA WARFARE*

Despite the coming of the air arm and the tendency of the great powers towards increasing their self-sufficiency the world to-day stands again under the sign of a renewed emphasis upon Sea Power and Naval Armaments. Simultaneously, in Germany there has taken place—*almost unnoticed by the general public and even by those more closely interested in world politics—from the World War to the present day a fundamental reshaping of naval strategy forcing us to a profound change in our approach to it.* (Emphasis added.)

Thus begins the introduction to a little study on *Present-day Naval Warfare*, in which Ernst Wilhelm Kruse, a naval writer on the staff of a well-known Hamburg daily and an officer in the German Navy's Reserve, attempts to draw the first comprehensive picture of that new German naval doctrine.† What is that fundamental transformation, which German naval thought is alleged to have undergone between the last and the present conflict and how has it contributed to form and influence the German Navy's present strategy?

THE CONTRADICTION IN TIRPITZ'S POLICY

To answer this question we must go back for a moment beyond the World War to the beginnings of the rise of the German Navy to the rank of a first-class sea power under Admiral von Tirpitz in the last decade of the past century; for Tirpitz's policy, the fate of the German Navy in World War I and the revolution of German naval thought in the post-war era are intimately linked together. A fundamental contradiction inherent in Tirpitz's policy placed the German Navy in the hopeless position in which it found itself during the World War, which in its turn gave rise, in the decades following the war, to heart-burning criticism out of which was to arise the new German conception of naval warfare.

Admiral von Tirpitz, as Chief of Staff to the High Command between 1892 and 1894, had laid the foundation for his great work of the

*Reprinted with permission from *Brassey's Naval Annual*, 1940.

†*Neuzeitliche Seekriegsführung* (Berlin, 1938), translated as *Modern Naval Strategy*. See Chap. I, pp. 15-17.

resurrection of the German Navy from the deplorable state into which it had fallen during the eighties and early nineties of the last century by evolving a basic tactical and strategic doctrine. In the famous Service Memorandum No. IX he had condensed that doctrine into the following statements: that war at sea could be successfully waged only by striving for the "command of the sea," not by cruiser warfare or any other means; that such "command" could only be acquired by one of the belligerents at the expense of the other, and that for this as well as other reasons naval warfare, in contrast to land warfare, could only be waged effectively and successfully by a strategic offensive on the enemy's coasts, whereas a strategic defensive left a belligerent in a very difficult and well-nigh hopeless position; that finally to carry through such an offensive a superiority of at least one-third was indispensable.

These clear and sound ideas formed an excellent basis for the strategy of the German Navy as long as that strategy was directed against an opponent—the Franco-Russian forces in the Channel and the Baltic—over whom the German Navy could hope to acquire such a superiority of 30 percent.* When Tirpitz, however, recalled from the Far Eastern Station to master the obstinate Reichstag in June 1897, persuaded the Kaiser that Germany must build not only a battle-fleet, but a battle-fleet directed primarily against Great Britain to prevent that country, so he claimed, from destroying Germany's economic rivalry in the bud by a sudden attack in force, he had to base this new policy upon strategic assumptions running directly counter to the doctrine which he had just established with so much emphasis. Unable to hope by any stretch of phantasy that he would be able to create a 30 per cent superiority over the British Fleet, Tirpitz was obliged to have recourse to the ingenious expedient of his famous "risk-theory" openly proclaimed in the second Naval Law of 1900, but, as we know to-day, underlying already the first law of 1898.

The essence of that theory was that as the German Navy could not be made strong enough for a reasonable chance of victory against every opponent it should be made so strong that its destruction would cost even the strongest sea power such heavy losses, endangering its supremacy *vis-à-vis* third navies, that the mere thought of that risk would act as a deterrent against an attack. In other words, unable to provide the objects to be protected—the German oversea communications and interests—with an adequate *direct* military protection against the

*Thus in a plan drawn up by Tirpitz in the spring of 1896 for a speech in Reichstag the strength of the German Navy was set at 30 per cent above that of the French Channel Fleet computed at one-third of the total French forces. Correspondingly the plans of operation worked out by Tirpitz in 1895 foresaw an immediate attack upon that part of the French forces, before the rest would have time to come up.

overwhelming sea power of Great Britain, Tirpitz fell back upon the idea of safeguarding them *indirectly* by developing the German Navy into a "risk-factor" which, so he hoped, would prevent the war *politically*, which he could not hope to win *militarily*.

This ingenious scheme unfortunately suffered from the fatal drawback that, resting not upon solid military strength but upon a highly questionable and utterly unpredictable psychological assumption, it was not only liable to break down any moment, but, if it should break down, would leave the German Navy in precisely that position of pronounced inferiority, the dangers of which in naval warfare Tirpitz had set out so eloquently and convincingly in his Service Memorandum No. 9. Nor was that all. As Tirpitz—for obvious reasons—was not able to admit to his collaborators, and possibly not even to himself—the fundamental contradiction with his original strategic ideas contained in his much admired "risk-policy"* the German Navy was not only forced into a position of permanent inferiority running counter to the whole nature of naval warfare—in itself a fatal handicap to the development of sound strategic ideas—but, over and above, was not even given at least the benefit of a clear appreciation of that position, but, on the contrary, misled into a hopeless confusion of ideas by its own highest authority.

The inevitable result was that the German Navy's ideas on strategy were not only thrown into a hopeless confusion but almost completely stunted.† From its original doctrine of the *strategic* offensive the German Navy retained merely the "*tactical* will to battle,"‡ concentrating all its training and its effort upon preparing itself against the day of a decisive encounter with the British Fleet; but, as its fundamental policy foredoomed it to a hopeless defensive and precluded it from ever

*Publishing in 1926 in *Nauticus* the Service Memorandum No. IX—or rather judiciously selected parts of it—to prove that the German Navy had not been devoid of offensive spirit Tirpitz expressly claimed that it had formed the basis of his Naval Laws.

†After World War I German naval critics attempted to explain the stunting of German naval strategy in the pre-war period by external factors such as the lack of previous experience of naval warfare and the rapidity of the German Navy's development, which, so they claimed, forced the concentration of all attention upon the technical and tactical issues and left neither time nor force for the consideration of strategical problems. Undoubtedly these external factors contributed to hinder the development of a proper strategic doctrine in the pre-war German Navy; but recognition of this should not obscure the fact that the fundamental reason for the atrophy of strategic thought in the German Navy before the war was the state of permanent inferiority in which the Tirpitz "risk-policy" placed the German Navy *vis-à-vis* its British opponent making all reasonable strategic considerations out of the question.

‡In his memoirs Tirpitz opposes significantly enough the "Political defensive" of the "risk-policy" to the "tactical will to battle" contained in it. Strategy falls between these two stools. . . . In the introduction to the publication of the Service Memorandum No. 9, on the other hand, he avoids all references to either strategy or tactics and contents himself with affirming that "the military development was based upon a spirit of offensive. That spirit formed the military basis of the First Naval Law" (sic). *Nauticus*, 1926, p. 187.

envisaging a strategic offensive, that “decisive battle” became to the German Navy practically the ultimate end of all its ideas and aspirations, an “end in itself.” In theory indeed the German Navy paid lip service to a vague idea of “command of the sea” to which victory in such a decisive encounter should lead; but that “command,” in a misconception of Mahan’s ideas that has persisted to this very day, was conceived as a state of purely military supremacy, parallel to that acquired by an army on land, and not as the indispensable presupposition and means to the real and ultimate objective of war at sea—the control of communications. Because it attributed this same erroneous conception of naval warfare as a struggle for “military supremacy on the sea” to the British Navy, the German Navy was firmly convinced that the Grand Fleet would not fail upon the outbreak of hostilities to bring its “brutal superiority” to bear and come forth into the Heligoland Bight to offer it battle.

When in the years immediately preceding the World War the German naval authorities began more and more to suspect that the Grand Fleet would not be inclined to play into their hands and prefer to blockade them from Scapa Flow, they were so incapable of adjusting themselves to this new situation that they continued to hope against hope that it would not arise.*

WORLD WAR I

The failure of the Grand Fleet at the outbreak of hostilities to appear in the Heligoland Bight and offer itself to the German High Sea Fleet’s counterstroke upset at one blow the whole of the German Navy’s strategy and disclosed the fundamental fallacy in Tirpitz’s policy. Waiting in vain in tense suspense in its estuaries for the enemy to come and cross swords with it, the German Navy missed whatever advantages it might have secured by a determined attack against the transport of the British Expeditionary Force across the Channel in the first weeks of the War, to awake gradually to a situation for which it was completely unprepared, both materially and psychologically. Pent up in the innermost corner of the North Sea it found the battle, for which it had been training for nearly two decades, out of its reach and its opponent, from his far-off base at Scapa Flow, able to cut all its communications with perfect impunity while itself was unable to strike a single effective blow for its defence, far less in its turn to attack its opponent’s

*See for this point the memorandum of May, 1914, quoted and criticised by Admiral Groos in the first volume of *The War in the North Sea*. When Tirpitz, who was with the fleet on its cruise in the summer of that year, asked Admiral von Ingenohl, the Commander-in-Chief, “And what, if the English should not come after all?” the latter had no answer; but neither had Tirpitz himself!

communications. Built for a battle within a radius of some 100 miles around Heligoland the German Fleet was even technically incapable of seeking out the Grand Fleet in its own waters, even if its inferiority, both in numbers and position, had not precluded it from challenging effectively the command exercised by the latter.

All that its leaders felt they could do under these circumstances was to attempt to lure their opponent to expose his forces in detail by "tip and run" raids against the British East Coast. As these, however, had to rely for their effect not upon the threat to vital British communications, but merely upon the moral pressure exerted thereby upon the government, they did not prove very effective, and when at last the raid of May 30, 1916, against the trade route running through the Skagerrak brought Admiral von Scheer face to face, not with parts but with the *whole* of the Grand Fleet, he was fortunate enough to be able to extricate himself by his skill and the brilliant training of his force from that not very pleasant situation. The result was that the German Navy, convincing itself of its inability to break the British "command" in battle, began to place all its hopes instead upon undermining it by unrestricted submarine warfare. From the autumn of 1916 onwards, therefore, the German battle-fleet fell back more and more into the role of a support for the submarine promoted to the position of the decisive weapon, with the result that its spirit, already badly shaken by the frustration of all its hopes as well as by long inactivity, began to disintegrate more and more until the flame of open revolt broke out and precipitated the general breakdown that ended with the German Fleet's surrender.

THE POST-WAR ERA: THE OFFICIAL VIEW

This tragic discrepancy between the high hopes and aspirations with which the German Navy had been built and its inability to alter the helpless strategic position in which it found itself during the War could not but set those who had devoted their lives to it thinking. Again, however, the wholesome though bitter lessons, which might have emerged from a candid recognition of the fundamental reasons for that failure, were suppressed and distorted by the intensive propaganda by which Tirpitz strove, with astonishing success, to obscure the fact that his whole policy, based upon a series of misapprehensions and miscalculations, had been completely discredited by events. In the face of the overwhelming weight of the whole evidence available he asserted that his "risk-policy" had been on the eve of success when Bethmann's bungling of the situation in July, 1914, had given the British their "last chance"; and that strategically the German Navy's chances of victory had been thrown away by the Kaiser's and Bethmann's reluctance to risk the

fleet, and the lack of initiative on the part of the various commanders and other authorities in letting themselves be fettered by their orders. The former claim was the very reverse of the truth, and the latter substituted subsidiary factors for the real issue; but the German Navy in the bitterness of defeat was only too glad to convince itself that its fundamental policy had been right and that it had only been deprived of the success deserved by the errors and the timidity of the civilian authorities. Practically the whole of German naval opinion fell promptly into line with this view, which to this day (1940) dominates the German Navy's outlook despite the change in recent years in its strategic outlook. Above all, the tendency to demonstrate the correctness of that view involuntarily dominated and coloured the Official History of the War.

The officer entrusted with the crucial section on "The War in the North Sea," Commander (now Admiral) Groos, was an unusually broadminded and well instructed naval theorist. In later years he achieved great merit by introducing first Corbett, curiously enough almost completely ignored before the War, and later Admiral Castex to the German Navy, and he exercised a most salutary stabilising influence as the outstanding authority on questions of naval strategy. But, unfortunately, he was also an ardent admirer of Tirpitz and always inclined to let himself be swayed in his judgments by the latter's contentions. Thus the "War in the North Sea" presents a curiously contradictory spectacle. On the one hand Admiral Groos started by freely admitting that the German Navy had failed to understand that the essence of naval strategy lay in the fact that it was not a struggle for "military supremacy" as an end in itself, but for the ultimate aim of "control of communications"; and he strongly criticised the German commanders' failure to realise the significance of the decisive fact that Great Britain "by her geographical position alone" was able to cut Germany off from all her trans-Atlantic communications. But the recognition of this fact did not lead him on to a fundamental re-examination in its light of the soundness of Tirpitz's policy or the strategy of the German Naval Command in World War I. Instead, after having mentioned this fundamental weakness of the German position he quietly dropped this decisive issue without examining whether and how the German Navy could have tried to effect it; and for the rest of his critical analysis he treated the problem facing the German naval commanders as if it had merely consisted in the problem of bringing its opponent to battle and not in the practically hopeless proposition of wresting from him the "command" against a vast superiority both in numbers and in position.

On the other hand, Groos did not minimise the great superiority which they had to face and, therefore, rightly maintained that the only

way in which the German High Sea Fleet might conceivably have wrested "command of the sea" from the Grand Fleet would have been a *series* of victories over sections of it, in contrast to Tirpitz, Wegener, and others, who boldly proclaimed its capacity to achieve a victory over the whole united force of the Grand Fleet. This contradiction between his apologetic tendencies and his better insight is curiously reflected in his "Seekriegslehren" in the fact that he discusses the German strategy in World War I not once, but twice, under mutually exclusive headings; *wrongly* as the problem of "acquiring command by battle," *rightly* as that of disputing it by a "fleet in being."

ADMIRAL WEGENER'S "NAVAL STRATEGY OF THE WORLD WAR "

This reluctance of German naval opinion to face squarely the central issue of the war in the North Sea—the fact that the German Navy with all its activity had completely failed to affect the strangle-hold of the British blockade that was slowly choking Germany to death—did not remain, however, without opposition. In 1926 Vice-Admiral Wegener (retired) in a memorandum at first distributed privately amongst a number of elder officers, but three years later made generally accessible in book form under the title *The Naval Strategy of the World War*, (*Seestrategie des Weltkrieges*), put forward a trenchant criticism of German naval strategy during that conflict as well as against its subsequent interpretation, that was to exercise the most profound influence upon the whole further development of German naval thought.

Admiral Wegener started his study by hammering into his readers' minds the fundamental difference between the British position at Scapa Flow, controlling and covering all the trade routes of the seven seas, and the German position in the innermost corner of the Heligoland Bight, controlling no trade route whatsoever. In these circumstances, he claimed, the persistent endeavour of the successive German Naval Commanders to bring about a decision in the "strategically dead" North Sea had been the attempt, hopeless from the outset, to bring about a battle, where the German Fleet could neither enforce it nor utilise it. German naval strategy in the World War had unconsciously been fatally vitiated by the influence of Tirpitz's "risk-theory" which by its defensive formulation had blinded the eyes of the German Navy to the fact that it could only hope to achieve its mission—the maintenance of Germany's vital overseas communications—by taking the offensive and wresting the "command" from the Grand Fleet. The proper strategy for it would, therefore, have been to create equality of strategic position with the Grand Fleet by a "geographical offensive" that should have carried the

German Fleet through the Danish Sound to the control of the Kattegat and to a position at Skagen at the tip of the Jutland peninsula, and from there to the S.W. coast of Norway. From there the German Fleet would have been able to roll up or at least to force back the British line of blockade and thus to bring about a decisive battle for the real issue of the War.

This bold indictment, advanced with impressive assurance, contained a curious mixture of truth and error. By placing the real issue in the centre of the discussion and insisting that the naval strategy of World War I should be judged with reference to it and not to what the German Commanders had believed in or hoped for, Admiral Wegener undoubtedly rendered German naval thought an outstanding service. It was most significant that such candid recognition of the real problem should have immediately led him beyond the faulty dispositions of 1914 to the contradiction inherent in Tirpitz's "risk-theory" as the ultimate root of the trouble. There, however, he stopped. He realised clearly how the strategic outlook of the German Navy had been stunted before the War by the defensive cant of the "risk-theory" and its fundamental contradiction of the true nature of naval warfare; but he saw in it merely a strategic misunderstanding and not the reflex of the far more fundamental viciousness of the German Navy's material position that resulted from it. Elated by his discovery he completely ignored that, to assume the strategic offensive and successfully to dispute the control of communications, a correct appreciation of their cardinal importance in naval warfare was not enough but that a substantial material superiority—Tirpitz's one-third—was indispensable. Thus, instead of realising that the fundamental mistake in Tirpitz's policy had lain in directing the German Navy's reconstruction against the overwhelming power of Great Britain, and the German Navy's difficulties in the World War *primarily* in its numerical inferiority and only *additionally* in the confusion of ideas caused by the cant of the risk-policy, he attributed everything to the latter alone. He thus arrived at the curiously inconsistent attitude of whole-heartedly endorsing Tirpitz's fundamental policy while at the same time blaming him for having given it the form and objective by which alone, if at all, it could have succeeded, and for having failed to have given it an aim—the control of communications—which Tirpitz could not possibly have envisaged.

This lack of a truly clear understanding profoundly vitiated Wegener's otherwise brilliant and stimulating criticism of German naval strategy during the war. Inclined to attribute to strategic dispositions an importance out of all proportion to their possible significance, he came to an over-optimistic view of the chances of the German Fleet in the War as well as to a fatal over-emphasis upon the importance of strategical

positions as compared with material forces. The advance of the German Fleet to the S.W. coast of Norway suggested by him—provided always that it could have been carried through at all—would have been able to do very little to improve the fundamental weakness of the German Fleet's position. All that it would have achieved with certainty would have been to bring about the battle which the German commanders had sought so long in vain in the North Sea; but not the battle they were striving for, with isolated sections of the British forces, but the battle which even the most enterprising of them, Scheer, had wished to avoid, the battle with the whole concentrated might of the Grand Fleet. In fact, by precipitating such an action it would actually have destroyed the one slender chance of the German commanders of beating their opponents in detail, while, once the issue had been joined, the better strategic position of the German Fleet would have been unable to add anything to its chances of a tactical victory. Wegener's claim finally that a victory won by the German Fleet off the coast of Norway would have had a strategic significance, whereas one achieved in the "strategically dead" North Sea would have had none, was simple nonsense; Admiral Groos pointed out with perfect justification that, if the German High Sea Fleet had succeeded in winning a decisive victory over the Grand Fleet, it would have mattered nothing where the battle had taken place.

It is, however, understandable that this sovereign disregard of the realities of the situation by Admiral Wegener earned him much sharp criticism on the part of many elder officers, but also the enthusiastic admiration and support of the younger men. The immense influence which his study was to exercise on the development of German naval ideas can only be understood if one realises the immense emotional appeal which his optimistic presentation of the German Navy's lost chances in World War I, and his clarion call to a second and better advised attempt, exercised upon the future leaders of the German Navy. To these young men, groping desperately for an idea in the light of which they could reconstruct German sea power, his emphasis upon the "control of communications" as the true goal and sole aim of naval warfare came with the force of an absolute revelation;* but one can well doubt whether its effect would have been so overwhelming if Wegener's criticism of Tirpitz's policy had been more radical and his picture of

*"It is an honourable duty to attest that Vice-Admiral Wegener has been responsible for giving the inspiration to naval strategic thought in the higher sense in which at the moment a great part of the officers is already eagerly taking part." Captain Claussen, "Vom Wesen der Seestrategie," *Marine Rundschau*, 1927, p. 446.

"It must be clearly expressed that these articles constitute pioneer work in the sense of preparing the way for an intellectual activity, which before the World War had been greatly underrated and, in consequence, crippled." Commander Grassmann, "Vom Wesen der Seestrategie," *Marine Rundschau*, 1927, p. 337.

Germany's chances during the War less optimistic and enthusiastically inspiring. In the crop of articles inspired in the following years by his study, in which a number of these younger men attempted to develop in his wake a new understanding of naval strategy,* this emotional appeal is very clearly apparent and the disregard of realities, with which they fought World War I over again to a better end, even more grotesquely exaggerated.

Incomparably more serious than these youthful ebullitions—which as far as necessary immediately found their correction—was the danger of a fundamental misunderstanding contained in Wegener's theories. As it appeared in his discussion of the naval strategy of World War I the newly discovered ultimate aim of naval warfare—the control of the vital communications—did not affect, but, on the contrary, tended still further to reinforce the traditional objective, "command of the sea." "Command of the sea" ceased to be an end in itself—in the sense of a "strategically empty" purely military supremacy, in which it had been erroneously envisaged by the German Navy before and during World War I—but it retained its full significance as the indispensable preliminary and means to an effective achievement of that ultimate aim. This fact, however, had not explicitly been set out by Wegener, with the result that the door was opened to the possibility that, in the absence of a fully developed theory, the end might so far overshadow the means that the latter's vital role might be overlooked and "control of communications" conceived as something possibly independent of, or even opposed to, "command of the sea." In these first articles based upon Wegener's study that danger was as yet hardly more than a shadow, but that it was perceptible even at that moment to an intelligent officer, is shown by the critical observations with which Commander Walter Neumann accompanied Grassmann's article on the "Essence of Naval Strategy." Commenting upon the three "tasks" enumerated by the latter—the cutting of the enemy's communications, the maintenance of one's own communications, and the protection of the coasts—he pointed out that the author had completely omitted the first and fundamental task of every naval commander—measures aiming at the destruction or control of the enemy's armed forces. "That this task is not being purposely excluded can perhaps be inferred from the author's later observations," he goes on, "clearly and unmistakably, however, it has not been set out by him. If one confines oneself to a verbal interpretation of the three

*Captain Claussen, "Ueber Seepolitik und Seestrategie," *Marine Rundschau*, 1926, p. 81, with observations and criticisms by Admiral Hollweg (retired) in the same volume, p. 404, and Commander Grassmann, "Vom Wesen der Seestrategie," *Marine Rundschau*, 1927, p. 337, with observations and criticisms by Captain Claussen, p. 444, and Commander Walter Neumann (retired), p. 446.

points enumerated by him, the danger is imminent that one might fall into the error of a tendency long prevalent in France, the adherents of which aimed at achieving the ends of naval warfare by the fulfilment of its subsidiary tasks with the result that the French Navy in its material and training became incapable of achieving its main objective."

With remarkable foresight Commander Neumann had in this passage laid his finger upon the very spot whence the "revolution in German naval thought" was to take its source. For the time being the movement brought into German naval ideas by Wegener's study, however, stopped there. In 1928 Admiral Groos reassembled in his "Seekriegslehren" the ideas developed by him in the writing of the Official History in a framework taken over from Corbett's *Some Principles of Maritime Strategy*, and for the next eight years by his authority, backed by that of Castex, whose monumental *Theories Strategiques* appearing from 1929 to 1935, introduced to the German Navy in a long series of articles in the *Marine Rundschau*, kept German naval thought on the safe, if somewhat eclectic, lines of a sober, common-sense evolution of Mahan's and Corbett's classical doctrines.

THE NEW NAVAL DOCTRINE

The revolution in German naval thought started by Wegener's study came to a head in the first years of the Nazi regime when the resurrection of the German Navy made the development of a suitable strategic conception for its guidance imperative.

This new strategy, which from 1935-6 onwards rapidly conquered and dominated practically the whole of German naval thought, found its extreme—and hence its clearest and most consistent—expression in the study which for the first time presented it to a wider public, Captain von Waldeyer-Hartz's article on "Naval Warfare of Tomorrow."* In this study the dissociation of the new aim of "control of communications" from the traditional method of seeking "command of the sea," the first almost imperceptible traces of which we found above with Wegener's first adherents, had been developed to its utmost. Captain von Waldeyer-Hartz no longer tacitly overlooked the decisive role played by "command of the sea" in the struggle for "control of communications," but, erroneously identifying it with that conception of naval warfare as a purely military struggle which had vitiated the German Navy's thoughts before and during World War I, rejected it as out of date, and proclaimed in its stead the new naval strategy of to-morrow, which should aim directly at the defence and attack of trade without the intermediary step of the struggle for a "general command."

**Wissen and Wehr*, 1936, p. 183.

"The naval strategist of the future," he said, is no longer going to make his plans of operations dependent upon purely military considerations; he is going, on the contrary, to place himself and the forces under his command in the first place in the service of economic warfare. If that opinion should prove correct—and there are many signs for it—then trade warfare will be the dominant form of the naval warfare of tomorrow.

And again,

The Blue-water School of to-day is completely different from that of the sailing-ship era. The latter saw its ultimate military objectives in the seeking out and destruction of its opponent's armed forces, the attack and defence of trade fell under the heading of subsidiary operations. In future the roles will be changed. The armed forces afloat are going to be utilised for the intimidation and control of the neutrals; the whole strategy will be directed upon the objective of immobilising, or better still, destroying the merchant shipping under the enemy's flag, with the utmost consideration for one's own armed forces; operations are no longer going to be directed upon the enemy's armed forces, but against his economic resources; in one word, battles and combats at sea are going to be merely the consequences of trade warfare, whereas formerly—to quote only Aboukir and Trafalgar—they constituted the end of all strategic measures. Blue-water School of to-day means trade warfare, trade warfare in its extreme form.

Attack upon the enemy's trade and protection for our own trade, those are the decisive tasks to which everything else is going to be subordinated. The result will inevitably be a wide dispersal of naval forces.

And summing up,

Because of the wide dispersal of merchant shipping naval warfare is going to take place on all the seven seas simultaneously, most violently at those points where sea trade is most strongly concentrated.

The distinction between merchantman and man-of-war is going to disappear. Both of them are going to be fighters, attackers and defenders alike.

The designation of this new conception of naval warfare by Dr. Kruse as revolutionary is, if possible, an understatement. What Captain von Waldeyer-Hartz presents here under the disguise of a mythical British "New Blue-water School" is nothing more or less than the conscious repudiation of the tradition of four centuries of naval warfare brought into a rational form by men like Mahan and Corbett. The central issue of that warfare, the struggle for the "command of the sea," had been a

measure of defence and offence alike; the elimination of the enemy's main forces from the sea by battle or blockade had formed the surest—in fact, the only sure—measure against an invasion, just as it constituted the pivot for the whole complicated system of trade defence and the basis for a diversion of the enemy's forces by combined operations or large-scale maritime wars.

This cardinal function of the “command of the sea” in naval *defence* was completely overlooked by the new German school of naval strategy which, erroneously identifying the quest for the “command” with a *military* offensive against the enemy's armed forces, believed that naval warfare could in future be conducted, without such “military strategy” altogether, as “mutual trade warfare” in the form of attack and defence of convoys.*

The German Navy, however, accepted this revolutionary doctrine without hesitation or question, so eminently did it seem to fit its peculiar position. By the naval agreement with Great Britain of June, 1935, the overwhelming opponent, the superiority of which she had had to recognise during World War I, appeared to have been eliminated for ever. With the Anglo-German rivalry of prewar days removed by Germany's acceptance of a 35 per cent standard every possible source of friction was claimed to have been removed and a naval conflict between the two nations to be henceforth out of the question. With that contingency apparently removed there remained then as practical propositions a struggle with either France or Russia, or more likely a coalition of the two. Against Russia alone the German Navy would probably have been able to secure the “command of the sea” in the Baltic; against France, or France and Russia allied, her forces were obviously not adequate to that task. On the other hand, thanks to the

*That an understanding of that *defensive* function of the “command of the sea” was not wholly lacking in Germany is shown by the article of Rear-Admiral Donner (retired) on “Offensive Defensive in der englischen Seestrategie” in the same volume of *Wissen und Wehr*, 1936, p. 676, in which had appeared Waldeyer-Hartz's article. In this study Admiral Donner gave a very clear appreciation of the role played by the “command of the sea” in British defence against both invasion and attack on merchant shipping, remarking on the latter point; “For non-selfsufficient countries bordering on the sea the maintenance of their overseas imports will normally constitute a life and death problem. In that case the mere coastal defence proves wholly insufficient as the sea itself remains beyond its reach, lies open to enemy action and becomes unpassable. Such defence of trade can therefore in the last resort be satisfactorily assured only by offensive action. The defensive system of trade protection by convoys can in certain circumstances prove sufficient over a considerable period, but is hopelessly inadequate against an opponent full of initiative. . . If it has succeeded during the World War against the submarine, it was only able to do so, because the British Main Fleet kept its opponent's main forces away from the lines of communication.”

As these remarkably clear observations ran, however, against the whole trend of contemporary German naval thought, they have remained without any effect and it has been left to a foreign naval authority, Admiral Castex, to give Admiral Donner's articles the praise and credit due to them.

screen offered by a supposedly neutral Great Britain, she could hope to maintain her vital trans-Atlantic communications by convoying her merchantmen through the North Sea into the open Atlantic and beyond. Admiral Castex himself confirmed this from the French side.*

THE VOLTEFACE AGAINST GREAT BRITAIN: CRUISER WARFARE

This pleasant dream was rudely broken, and the special character of the strategic doctrine, upon which the German Navy had based itself, was painfully recalled to her when, after Munich, the impossible threatened to become true after all and Hitler's policy threatened to range Great Britain against him. That the British Fleet would not be satisfied with that form of "mutual trade warfare" ascribed by Waldeyer-Hartz to its "New Blue-water School" was too self-evident to need any elaboration. Before its mighty shadow the German Navy's dream of achieving this time, what she had failed to do during World War I, the maintenance of Germany's oversea communications, disappeared overnight almost without a word.† All the more eagerly did attention concentrate upon the offensive aspect, for here the change from a strategy aiming at a battle with the enemy's armed forces, as in World War I, to the new strategy of "trade warfare," seemed to hold out prospects promising generous compensation. In World War I the German Navy had committed a fundamental mistake by keeping its gaze, as if hypnotised, upon the Grand Fleet, striving in vain to wrest from that fleet the "command" which in the nature of things it could not possibly hope to win. That mistake would not be repeated again. By avoiding, as far as possible, clashes with the British armed forces and concentrating instead the full strength of her attack—submarine, aerial, and surface—against her merchantmen she would strike not against superior strength but weakness, and fight not for an illusory military advantage, but for the real aim of naval warfare, the "control of communications."

This plan of campaign, although arrived at in a curiously devious manner, was certainly the best the German Navy could devise under the circumstances and it was not without some promise of success. In the past, the system of naval defence based upon the blockade of the enemy's main forces had tacitly rested upon the assumption that the enemy forces which inevitably would be able to avoid even the closest of

* *Théories Stratégiques*, Vol. I., Nouvelle Edition, p. 121.

† The only reference to this defensive aspect of German naval strategy in the case of a conflict with Great Britain is the laconic observation by Admiral Prentzel: "A hostile attitude on the part of England would confront our naval strategy in the North Sea with very difficult tasks." Article "Kriegsmarine" in *Die Deutsche Wehrmacht, 1914-39*, edited by General Wetzell.

such controls would not be superior, individually or collectively, to the relatively weak forces acting as patrols or as direct protection of convoys behind the screen formed by their own main battle fleet. Whenever in the course of the Anglo-French naval wars the French Navy had sent out upon cruiser warfare whole squadrons of ships-of-the-line instead of the usual swarm of privateers and frigates, the difficulties of dealing with them had been great. If the German Navy instead of, as in 1914, letting its larger units be immobilised in the North Sea by the British Main Fleet, this time directed them instead against the relatively weak escort forces, she would in effect circumvent the whole traditional system of defence and could hope not merely to inflict considerable material damage, but above all to create a very considerable distraction of military effort. In World War I her submarine attack had broken down in the last resort, because the submarines, left to struggle alone, were defeated by the weak convoy escorts. Now a combination of submarine and surface attack promised a better success. Forcing the shipping into convoys the submarines would thereby offer to the surface raiders ideal targets to swoop down upon.

In her three so-called "pocket battleships" German naval experts claimed she possessed the ideal instruments for such supercruiser warfare. In a remarkably frank article on escort vessels published in the *Militär-Wochenblatt* in November, 1938, Vice-Admiral Meurer (retired) noted with satisfaction that although the building of large numbers of escort vessels by Great Britain showed clearly that she was anticipating not only submarine but, above all, surface attack, "nothing substantial had as yet been done in England (and equally in France) for the protection of oceanic convoys." Discussing the cruiser forces available as well as the plans for a strongly armoured and relatively slow type of 8,000-ton escort cruiser, he came to the conclusion that they all were insufficient to afford protection to "oceanic convoys" against "large commerce destroyers."

Against heavy cruisers with 8-in. guns, and still less against armoured ships of the 'Deutschland' type, such escort cruisers would indeed not be of any great avail. If such dangers had to be faced, older battleships, as in the case of the Norwegian convoys during the World War in 1918, would have to take over the protection. It is, therefore, not only a very important, but a very difficult, question that is being raised thereby; a question which has in no way been solved as yet despite the fact that it affects the whole strategy of naval warfare. The less one will have to reckon in future with the clash of large battle fleets as in 1916 at Jutland, the more trade warfare is going to become the main operative task of the strategy of naval war.

CONCLUSION

Under the influence of the contradiction with which it was infected by Tirpitz's ill-advised policy the German Navy has to this day failed to arrive at a truly sound theory of naval warfare. The reluctance to carry through the radical criticism necessary to clear the ground in this respect, together with a certain predilection for mere abstract reasoning and a misconception of British naval history as well as of its great interpreters, Mahan and Corbett, has vitiated the very notable effort made after World War I to arrive at a better appreciation of the true nature of naval warfare, with the result that German naval thought has swung almost as far away to the other extreme as in her pre-war conception of naval warfare as a purely military struggle.

How far this weakness of her theory may have affected the German Navy's conduct of the present operations it is at this moment impossible to tell. It is, however, significant that her well-laid plans have so far not been carried into practice. Above all, the wholesale attack upon the Allied convoys, that was to have been the centrepiece of her whole strategy, has so far completely failed to materialise. Two of her "pocket battleships" have indeed succeeded in getting into the open Atlantic, but their activities have been wholly confined to ordinary cruiser warfare against isolated merchantmen and their results in consequence very small. The *Graf Spee* kept well out of the track of convoys and, if interviews that have appeared in the South American Press are to be trusted, was actually under order not to engage any convoy escorted by more than two destroyers. Is it conceivable that that mysterious factor "command of the sea," for which German naval thought has professed so much contempt in recent years, may have proved an incomparably more impressive force in reality than on paper, and may have contributed to create that feeling of inferiority which in the past has cramped so many hopeful projects of a numerically inferior navy?

V

STRATEGY AND PROPAGANDA

IN GERMAN NAVAL THOUGHT *

The First World War has opened the eyes of many amongst us—if not yet by any means of all. But of the experiences we gained in it we have drawn the logical conclusions for our guidance, not only *during* the present conflict, but—and this is decisive—*during the period of intellectual and material preparation which preceded it*. On this foundation, which differs profoundly from that of 1914, the new German Navy has entered this new World War, despite its numerical weakness, with a clear ultimate objective which it has pursued from the first day onwards with determination and daring and which it will continue to pursue until final victory.

The path to Sea Power is steep; and difficult for a nation which since the decline of the *Hanse* has found itself exclusively determined by continental interests and in its schools has heard much indeed of glorious campaigns on land, but little of naval wars and World Power. Despite all this our leadership can to-day survey with profound satisfaction, how much we have learned out of the last World War—so much that when one day our banners will come home out of this struggle crowned with victory we shall be justified in saying: We have won this War because we lost the First World War.

This confident belief in victory through a superior mastery of present day naval warfare, born out of the revulsion from the first utter misunderstanding, with which Admiral Assmann, Head of the German Navy's Historical Service concludes his outstanding essay. "Transformations of Naval Warfare," in *Nauticus* 1943, is not propaganda; it is the conviction that has determined the German Navy's strategy during this conflict and which we must try to understand in order to touch the inner-most nerve beneath its many seemingly inexplicable vagaries.

GENERAL CHARACTERISTICS OF GERMAN NAVAL THOUGHT

In order, however, to understand the decisive significance attributed by Assmann to this radical change in the German Navy's outlook, it is first necessary to appreciate the exceptional role which theoretical

*Reprinted with permission from *Brassey's Naval Annual*, 1945.

consideration has from the outset played in determining the course of the German Navy. For this exceptional significance of theory is not merely the expression of the well-known general German belief in abstract principles, but the result of a unique combination of a number of quite peculiar circumstances.

First and foremost, the German Navy has been essentially an artificial creation. As Admiral Assmann has well expressed it, it had no roots in the past and despite the rapidly growing increase in German overseas trade, shipping and colonies, no clear-cut military function either. Its leaders saw themselves, therefore, continuously faced with the necessity of developing a theoretical basis for its existence in order to justify it to the Reichstag and establish for themselves a goal towards which to bend their efforts.

The German Navy, moreover, did not grow up in a vacuum. It had to develop in a nation which had lost all contact with naval warfare and its peculiar problems, and at the same time in the shadow of an army, which had been foremost in developing the theory of modern strategy and which owed its rise, after 1870-71, to the rank of the leading military power to a large extent precisely to that superiority in theoretical clarification and intellectual training. The combination of these two (or three) factors turned the German Navy not only from the outset towards the elaboration of a similar comprehensive theory of its own but also, what was by no means the inevitable consequence of this, toward modelling itself, consciously and even more unconsciously upon the familiar and proven methods and concepts of German military theory. Thus we find the German school of naval thought not only from its earliest beginning bent upon a parallel comprehensive and systematic analysis of naval warfare but actually seeking to achieve this not so much through the inductive study of naval history, as had been the case both with Mahan and the British school, as by the systematic comparison of conditions obtaining on land and at sea. Properly handled, this peculiar deductive approach might well have proved a most useful complement to the empirical method. But under the existing circumstances, without the indispensable balance of a firm grip upon the facts, it tended to mislead German naval writers into pressing naval warfare into a conceptual framework evolved out of the totally different conditions obtaining on land, or else into purely abstract discussions and distinctions which gave their work a strange atmosphere of unreality.

Moreover, their attempt to trace the differences between these two forms of warfare back to the radically different nature of the two geographic media in which they had to operate, land and sea, led German naval thinkers straight into the arms of the great anthropo-geographical school of Ritter and Rätzels, which at the turn of the century came to

meet them halfway. The rhapsodic language in which Rätzelt extolled the grandeur of sea power, served indeed to inspire their thoughts with a grandiose sweep; but, equally to carry them away into sentimental flights of phantasy, and to that blurring of the dividing line between fact and fancy, vision and wishful thinking, sober strategic analysis and propaganda, which has remained such a characteristic, and fatal, trait of German naval thought down to the present day.

TIRPITZ

All these elements of German naval thought, which we find most clearly expressed in its earliest representatives, Rittmeyer, Stenzel, Valois, and above all Maltzahn, form the background of the great rise of the German Navy from the turn of the century to the First World War. But the dynamic impulse behind that rise came from a widely different source and personality. Admiral von Tirpitz, whose ideas were to determine the German Navy's course, outlook and fate far beyond his own tenure of its secretaryship (1897-1916), was a brilliant tactician and organiser, a born leader of men; a past master of intrigue; resourceful, indefatigable in the pursuit of his aims, utterly unscrupulous in his methods. But he was no systematic thinker, no man capable of achieving a broad balanced view of the tremendous issues into which he engaged himself with boundless assurance and self-confidence; no strategist; least of all, what his adherents never tired of acclaiming him, a statesman.

Thus, the set of ideas which, while Chief of Staff to the High Command, he evolved in the early nineties as an ideological basis for the revival of the German Navy from the state of confusion and torpor into which it had tended to fall between the impetuous and erratic influence of the Kaiser and the indifference of the Reichstag, was a strange hodge-podge; distilled out of a grossly misunderstood Mahan, a correspondingly distorted conception of naval history, particularly British naval history, and of his own curious mixture of unlimited ambition, enterprise, and almost pathological distrust. Unfortunately, a spell of duty in the Far East (1896-97) in command of the German cruiser squadron in those waters gave him first hand insight into the rivalries of British and German merchant firms for that rapidly opening market, and it convinced him once and for all, not only of the general correctness of his belief that henceforth the rank and the political relations with each other of the powers would be more and more determined by their share in the new imperialistic ventures, colonies, overseas trade, shipping, above all, sea power, but—what he had not yet been certain of up to that time—that in all these respects Great Britain was rapidly developing into the natural rival and enemy of German overseas interests; an enemy, so

he was convinced, who would not hesitate to crush once again a rising mercantile rival by brute force, before his competition became truly dangerous.

Once this conviction was firmly established in his mind, Tirpitz, with characteristic promptness and ruthlessness set out to devise the measures necessary to adapt the German Ship of State to the requirements of the new course, as well as to ward off that vital menace. The whole existing political framework of Germany was to be swung around; the Wilhelmstrasse virtually to be replaced by the Reichs Marine Amt, which was to become the new dynamic centre of German policy, the spearhead of her rise to the status of a true world power; co-ordinating all the manifold "overseas interests," colonies, colonial troops, overseas trade, mercantile shipping, the navy in its hands. The obsolete continental frictions with France and Russia were to be composed; these powers were to be convinced that their real antagonism lay with their common imperialistic rival, Great Britain, and if possible brought into a united front of the continental powers against the latter's encroachments; even the United States and the rising power of Japan were to be brought into line. Above all, as Tirpitz, while ever ready to make *flèche de tout bois*, distrusted any security not based on his own strength, the German Navy was to be built up as speedily and as secretly as possible to the point where it would be able to offer absolute guarantee against any such "preventive trade war," with complete equality as the final, far-distant goal ("*Femziel*").

It was with this grandiose and fantastic programme in his mind that Tirpitz in his fateful interview with the Kaiser on June 16, 1897, agreed to take over the Secretaryship of the Navy and attempt to push a big naval programme through the suspicious and largely recalcitrant Reichstag on the express understanding that the German Navy was to be built up "against Great Britain." The Kaiser gave his assent to that vital condition so readily and lightheartedly that Tirpitz found himself impelled to repeat his question in order to make sure that the Kaiser had quite understood, what he was committing himself to. As a matter of fact, the Kaiser, neither then nor at any later moment ever realised either the full extent of Tirpitz's plans or the implications of that commitment, and it is only fair to his memory to point out that if he ever had done so, he would in all probability have dismissed the latter. But, as things went, Tirpitz, who had entered his new office with the most exuberant aspirations, very soon had to realise that the Kaiser, while full of vague and grandiose visions of a mighty German Navy and dreams of world-wide sea power, was anything but ready even to listen to, far less to endorse, such a sweeping and utterly fantastic reorientation of German foreign policy. One by one he had to bury his hopes and by the

turn of the century found himself practically confined to the modest task for which the Kaiser had called him into office, the building up of the German Navy itself.

But this restriction of Tirpitz's original vast and ambitious schemes to the seemingly mere technical task of building up the German Navy did not deprive his work of its fatal political orientation. Baffled in his wider aspirations, he was nevertheless able to carry out over seventeen years (1897-1914) his plans for the building up of the German Navy "against Britain"; with the result of imparting to German foreign policy, which he was unable to control as a whole, a sinister undercurrent, all the more vicious because impenetrable to the outsider. For by no stretch of their imagination could the British statesmen, who during those years strove so hard to bring about a lessening of the tension created by the German Navy's more and more menacing expansion, have conceived that the men who officially were responsible for it, neither wished its strategic implications nor even understood them.

In a very different sense from that imagined by them, the Kaiser was indeed the fountainhead of the whole German naval policy. It was his almost pathetic infatuation with the dream of a great, powerful navy which provided the wily old seadog Tirpitz with the infallible Archimedean lever by which to overthrow any opposition, domestic or foreign. Whenever Tirpitz saw a major obstacle he had only to ask for an audience and remind the Kaiser that his historical lifework was at stake and that the arrogant British presumed to dictate to him the size of his Navy in order to provoke the desired outbreak against *die ganze verfluchte Dreadnoughtschweinerei*, as well as the necessary Imperial Rescript to the Chancellor.

That Tirpitz, playing with consummate skill upon the Kaiser's weaknesses, was able from this secure foothold to defy and defeat all his internal and external enemies, was due not only to the Kaiser's autocratical position in all matters relating to his armed forces, but above all to the fact that, of the men Tirpitz had to deal with, none had any understanding of sea power and its strategical problems. The Kaiser himself, for all his grandiloquent outbursts on Germany's need for sea power, was in reality a child in such matters; while Bülow, Bethmann and the others, and above all, the Reichstag, did not even aspire to understand naval policy and strategy. Moreover, in his famous "risk-policy," Tirpitz had found the master instrument, whereby to present his plans in a plausible form and yet to conceal completely their real significance. The measure of its success can be gauged from the facts that not only did the Kaiser naively accept it as the *magna carta* of his naval policy—but that to this day it has been universally accepted, discussed, condemned and defended, by students of that period as well as of naval

affairs, as the essence of his policy despite the fact that both he himself and his closest collaborator in its formulation, Admiral Hollweg, had openly confessed to it as a mere camouflage; and despite the further fact that in 1911, Tirpitz had made a definite attempt to repudiate it and replace it by the new formula of a "fair defensive chance." Outwardly, the "risk theory," as officially formulated in the second Naval Law of 1900 was harmlessness itself. By the curiously abstract reference to even the strongest sea power, it sought to maintain the fiction of a purely abstract basis as well as to point to Britain, yet avoid calling her by name. Its objectives could not possibly be more modest. The objective for which the German nation was asked to vote and construct the impressive total of thirty-eight battleships was not a successful attack upon any opponent, not even "a fair defensive chance," but merely the strength to inflict in defeat such losses as to make "even the strongest sea power" pause twice before incurring such a risk. What he really had in mind, when he first conceived this famous formula it is difficult to say, as his whole policy was still in the process of crystallising and the available evidence is conflicting and contradictory. But between 1904 and 1906, two events completely transformed the international balance of sea power and ended by presenting him with a wholly unforeseeable chance, which he was not slow to perceive or to exploit to the utmost. The first of these was the concentration of the bulk of British battle fleet strength in the North Sea forced upon Sir John Fisher by the rapidly growing menace of the German Fleet to the security of British home waters; the second the inauguration of the dreadnought policy, which discounted the existing overwhelming British superiority in older battleships to a large extent and restored competition "from scratch." By pushing the construction programme of the German Navy in two Subsidiary Laws of 1906 and 1908 to a height of four capital ships per year, Tirpitz saw here a unique opportunity to impose on Britain both a concentration of her forces which threatened to deprive her of all strategic freedom of movement as well as a building competition in capital ships, which, as he believed, she would not be able to stand over a prolonged period, in the expectation that these would force her to come to an agreement with him on such terms as he deemed adequate to safeguard once and for all German oversea interests. In the autumn of 1908 he appears to have believed himself very near to that goal; at any rate he was actually looking around for an unobtrusive pretext to go over in order to be "on the spot" for the overtures which he expected, when in the following spring the belated recognition of that threat induced the British government to the abrupt raising of their building programme for that year from two to eight capital ships and thus at one blow to overthrow all his calculations and hopes. From that blow Tirpitz never

again recovered. The remaining five years up to the outbreak of the War were consumed in an even more desperate sense of rearguard actions in the vain endeavour to secure at least an agreement on the basis of three British to two German capital ships, which, after the defeat of his high-flown hopes, he had come to accept as the indispensable minimum.

While Tirpitz's policy cannot, therefore, be claimed to have been actually the spark which touched off the European powder-barrel in July, 1914, it was certainly one of the major factors and probably the largest individual factor in creating that explosive situation. As the one permanent element in Anglo-German relations it had, over seventeen years, become the central issue around which all the other sources of friction between the two nations had crystallised, until by 1909, it had brought about a state of acute tension which alarmed even the lightheaded Bülow, and, by 1911, had led to the brink of open conflict. If during the next years its pernicious influence made itself somewhat less felt, it was not, as Tirpitz subsequently claimed, because his "risk-policy" had "begun to work" and had been on the brink of achieving final success, when Bethmann-Hollweg's "bungling" in July, 1914, had presented the British with their "last chance" to destroy the growing naval might of Germany before it became too strong for them, but just the reverse; because it had failed; because British naval policy was slowly but surely increasing its margin of superiority and loosening that strategic immobilisation, the exploitation of which was the inner secret of Tirpitz' policy.

THE STRATEGIC CONTRADICTION IN TIRPITZ'S POLICY

From whatever angle we approach Tirpitz's policy, it reveals itself as unsound and self-contradictory to the core. It was founded upon a rash and wholly arbitrary preconception—his belief that Anglo-German trade rivalry would lead the British to crush the growing German economic competition. Yet at the same time it proceeded upon the truly naive assumption that they could be fooled into permitting him to build up over a projected period of no less than two decades (1897-1917), a powerful fleet for the effective protection of that economic competition. And not only for the protection! For that basic political contradiction was still further complicated by the remarkable strategic paradox that the fleet which Tirpitz built up under the cloak of the defensive sophistries of his "risk-policy," while not strong enough effectively to protect the interests which it was meant to shield, was yet strong enough to threaten Great Britain in the very foundations of her existence.

That paradox can only be understood if one realises the peculiar strategic dilemma existing between Great Britain and Germany; a

dilemma which Mahan had, as early as July 1902, most lucidly exposed in his article in the *National Review*, "Conditions Governing the Disposition of Navies." "The dilemma of Great Britain," wrote the great American naval thinker, "is that she cannot help commanding the approaches to Germany by the mere possession of the very means essential to her own existence as a state of the first order." In other words, owing to her geographic position athwart all Germany's communications with the oversea world, Britain's naval supremacy in home waters, without which she could not maintain her independence for a single day, enabled her automatically to dominate German interests, as far as these, to an ever increasing degree, were dependent upon free access to the overseas world. What made this interlacement of vital strategic interests so particularly galling for the weaker of the two powers was that none of the other great powers was similarly affected; the United States and Japan being each predominant in their respective home waters, while Russia and to some extent France, which lay equally under the strategic shadow of British naval supremacy in the narrow seas, were not to anything like the same extent dependent upon their oversea trade.

But if this undoubtedly constituted a difficult situation for Germany, it left her with a clear-cut alternative; either to build a bigger fleet than Britain and challenge that power to a life and death struggle, or else to acquiesce once and for all in the British strangle-hold—in war—over German oversea communications and restrict herself to her position on the continent. It was the fundamental strategic contradiction in Tirpitz's policy that in trying to wriggle through between these two inexorable alternatives he set himself into diametric contradiction not only to this situation, but to all the principles of naval warfare and to the eminently sound opinions which he had originally held on that matter.

In his famous Service Memorandum No. 9, in which, about 1894, he first set out his fundamental political and strategic ideas, he had been most clear in emphasising the peculiar characteristics of war at sea in contrast to war on land; that it was directed towards the struggle for the "command," that therefore it could be successfully waged only by a strategic offensive, for which he demanded a numerical superiority of at least one-third over the prospective opponent, and that if such offensive action was impossible, an inferior fleet condemned to a strategic defensive would find itself in a well-nigh hopeless position.

All this he had to give up when, three years later, he turned from his original offensive plans against the Franco-Russian combination to his great campaign against Britain. By no stretch of imagination could he have conceived building up a fleet big enough to defend Germany's oversea communications in the only effective manner, namely, by wresting command of the narrow seas from the British. We have seen

above the ingenious expedient by which he tried, nevertheless, to find a way of securing Germany's oversea communications against the grip of the Royal Navy: to impose by the building up of the German Fleet such a financial and strategic strain upon the British that, as he confidently believed, they would sooner or later be forced to come to terms with him.

What is remarkable in this scheme was not so much the boundless belief in his own cunning which deluded Tirpitz into seriously believing that he would be able to force the British, of all peoples, by such pressure to consent to restrict their naval supremacy upon which their very existence depended, but that he should have completely failed to have realised the alternative that, if this most highly hazardous scheme did not succeed in dissuading them from war, the result would be to place the powerful fleet which he had built up at such pains, into that very position of helpless inferiority which he had so emphatically condemned in his Service Memorandum No. 9.

What makes this point the supreme mystery in the tortuous labyrinth of Tirpitz's schemes is that he does not seem to have simply decided to take that gamble with open eyes, in full consciousness of the disastrous consequences in case it should miscarry; but that to all appearances he remained blissfully and utterly unconscious of the fact that there had been any such radical break between his original offensive conceptions of naval warfare against France and Russia and his subsequent defensive plans for the conduct of a war against Britain. The result was that, in contrast to his political line which is consistent and clear once one has grasped its real purpose, his strategical concepts, both before and during the World War, are utterly confused and hopelessly out of focus. That confusion reached its unsurpassable climax when after the defeat Tirpitz, in 1926, solemnly published his Service Memorandum No. 9, calling for a superior fleet and the strategic offensive with the claim that it had formed the strategic foundation for his "risk theory" with its acceptance of a hopeless numerical inferiority and its one-sided emphasis on the defensive.

This utter confusion in Tirpitz's own strategic ideas became, however, all the more fatal to the German Navy, because in his domineering temperament he saw to it that no other influence should interfere with his own. At his instigation, the Kaiser broke up the High Command. The Admiral Staff, which on that occasion was made an independent institution, was kept, owing to Tirpitz's influence, an anemic body, devoted to purely academic studies, without any contact with, or influence upon, the fleet itself. The older naval writers, like Valois and Maltzahn, who did not fall in with his views, were systematically suppressed. Only Tirpitz's ideas were meant to reign in the German

Navy, and as Tirpitz had no idea of divulging the mysteries of his triple-bottomed policy even to his own service and, in the words of his most well-informed interpreter, concealed his innermost hopes and aspirations carefully even from his closest associates, that meant that the German Navy was for all practical purposes seriously reared on the strategic absurdities of his "risk theory." The effects were such that, by 1911, even Tirpitz seems to have felt that something was wrong; for in that year we find him in co-operation with his friend Heeringen, then Head of the Admiral Staff, urging upon Hollweg the shifting of the fleet Law to the new strategic basis of a "fair defensive chance," with express reference to the damaging effects of the "risk theory" upon the outlook of the Fleet. This fleeting insight into the fatal effects of his fictions does not appear to have gone very deep. For not only was the new formula just as fallacious strategically as the one which it was meant to replace, but, when the project fell through with so many other aspects of Tirpitz's plans at that time, he made apparently no effort to pursue the matter. The German Fleet, therefore, continued to be fed upon this admittedly damaging doctrine and to concentrate all its energies upon the tactical preparations for that great decisive battle which in the course of the years had tended to become more and more the sole goal of its outlook and endeavours.

THE WORLD WAR

This comprehensive, and yet extremely simplified analysis of the bewildering labyrinth of Tirpitz's ideas is unfortunately unavoidable. For without it, it would be impossible to understand the full extent of the almost unbelievable confusion into which he had, partly deliberately and partly unconsciously, scrambled the very simple and clear strategic issues which we have tried to expose; nor to realise why, despite all the desperate and highly intelligent efforts made to extricate German naval thought from this morass, German naval thinkers have continued to confuse its course down to the present conflict. Above all, it would be impossible to understand the feeling of utter helplessness with which the German naval commanders found themselves, on the outbreak of the First World War, confronted with a situation which in every respect ran directly counter to all they had been taught and had prepared for during the preceding 17 years.

We have said above that the *basic* factor of that helplessness lay in the numerical inferiority of the German High Sea Fleet, which Tirpitz had succeeded in completely obscuring by the strategic cant of his "risk theory" (or "fair defensive chance"). That strategic helplessness of a decisively inferior fleet, which is the outstanding characteristic of war at

sea and distinguishes it most sharply from war on land, the German High Sea Fleet of 1914 shared with the French Fleets of the 18th century and of the Napoleonic Wars. But with the fundamental difference that the French admirals, a solitary genius like Suffren excepted, completely failed to understand the pivotal role of the struggle for the "command," hence never realised their plight clearly and were perfectly satisfied with seeking to carry out those secondary tasks, the maintenance of communications with the French colonies oversea, the defence or conquest of such oversea colonies, the protection or attack of convoys, which their erroneous doctrine expressly held out as wholly preferable to the "empty glory of battles"; the more so as even their very limited measure of success in carrying them out was sufficient effectively to conceal from them the fundamental unsoundness of that strategy.

What made the case of the German admirals in the First World War so incomparably worse than their French fore-runners in the great wars between Britain and France was, first, the fact that the High Sea Fleet had been built and trained expressly, and in fact even exclusively, not for the pursuit of such secondary objectives as might at least serve to keep up the spirits of an inferior navy if it could not hope to dispute its opponent's "command of the sea," but for a decisive struggle with the Grand Fleet. Not indeed for a *strategic* struggle for the "command"—that idea had, under the confusing influence of Tirpitz's defensive doctrines, evaporated into the mist of an empty lip-service—but for a decisive defensive *battle* in the Heligoland Bay. There, in the neighbourhood of its bases, on its own chosen training-ground, the German naval command hoped, by bringing into play all special factors which it could possibly mobilise—mine fields, torpedo boat mass attacks, obsolete vessels down to the old coastal defence ships of the Siegfried Class, even the guns of Heligoland—first to whittle down the "brutal superiority" of the Grand Fleet, and then to meet it on something like equal terms. Into what lay beyond that defensive battle and how it related to the general strategic situation, nobody had ever really inquired.

When, therefore, the British Admiralty decided to abandon the policy of close blockade of the German North Sea Coast, upon which the German Admirals counted so confidently, and preferred to impose its control upon the High Sea Fleet from the distant base of Scapa Flow, it threw that force into a psychological confusion, which it certainly did not realise at that time, and which even to-day, after all that has come to light about it, is perhaps not yet fully appreciated in Britain. For it was not merely the case of a stronger fleet dominating the weaker. If that had been all; if the Grand Fleet had sallied forth and with the superior strength defeated the High Sea Fleet despite everything that it had tried to bring into play, the German Admirals would have understood that.

And even more, they might well have been led by this experience to lay their fingers upon the innermost strategic contradiction of Tirpitz's naval policy, the building up of an inferior battle fleet, and with Mahan, to realise "the fundamental principle of all naval war, that defence is insured only by offence," that is, by imposing one's control over the enemy with a superior force.

What completely baffled them, secondly, was the unique combination on the British side of pronounced numerical superiority with that peculiar geographic configuration, noted by Mahan in 1902, which enabled the Grand Fleet to strangle German oversea communications from its distant base in Scapa Flow without having first to sally forth into the Heligoland Bay and defeat the High Sea Fleet in pitched battle. For that most peculiar combination, coupled with their own no less peculiar training and indoctrination, involved them into a series of strategic paradoxes from which the successive directors of German naval strategy on the First World War and the commanders of the High Sea Fleet strove in vain for five long years to extricate themselves; and which German naval thought has not succeeded in unravelling down to this day.*

When the Grand Fleet, contrary to all that the German commanders had expected, hoped and prepared themselves for, was able, thanks to its superior position, to impose for all practical purposes its control upon them without having first to come forth and attack them on their chosen battlefield, the natural reaction on their part was to sally forth in their turn and seek to bring it to that battle that had been the end and all of their thoughts and training. But to their intense and ever-increasing consternation they found themselves unable even seriously to attempt this. Not only because the limited radius of their battleships, and above all, their destroyer squadrons, built for a battle within a radius of 100 miles around Heligoland, made it even *physically* impossible for them to seek out their elusive opponent in his distant lair. But because in addition the Grand Fleet's pronounced *numerical superiority* made it out of question—as the operative directive of the German Naval High Command clearly and expressly recognised—for the High Sea Fleet to affront it with even a remote prospect of success *anywhere in the open sea* (the *Freiwasserschlacht* of the German naval memoranda) where all those special factors which it had been preparing in the Heligoland Bay to offset its numerical inferiority would be partly or wholly absent. Thus from the outset the sorties of the High Sea Fleet which the German Admirals began to initiate, and gradually to expand, suffered from the hopeless inner contradiction of seeking to bring their opponent to battle,

*1945. Ed.

yet having to dread nothing more than to run into his *whole* force; with the result that, between the devil and the deep sea, they found themselves reduced to the desperate expedient of having to seek somehow, by bombardments of British East Coast towns, or by feints against the trade route running through the Skagerrak, to lure part of his forces into a trap.

That strategy collapsed in the battle of Jutland, when Scheer found himself suddenly in the very predicament which it had been his utmost endeavour to avoid and from which only his cool leadership, together with the excellent tactical training of the High Sea Fleet, permitted him to extricate himself without a catastrophe. In his report to the Kaiser, Admiral Scheer emphasised most clearly the impossibility of the High Sea Fleet doing anything decisive to improve that hopeless situation, and in consequence the necessity of concentrating henceforth the entire war effort of the German Navy upon the utmost, and unrestricted, exploitation of the wholly novel weapon and strategy with which the unexpected successes and achievements of the submarine had presented it at the last minute.

Yet recognition of the impossibility of resolving that dilemma was not tantamount to the recognition of its causes. To the end of that struggle the profound contradiction between the German Navy's exclusive training for battle and its inability to bring its opponent to action under the only conditions under which it could risk confronting him with a fair chance of success; between the urgent necessity of doing anything to break the deadly stranglehold of his far distant blockade and the even more urgent need to preserve the High Sea Fleet intact for the vital protection of the German northern flanks in the North Sea and the Baltic; between the strength and proud self-confidence of that mighty fleet and the almost senseless role which it was forced to play in the "strategically empty" North Sea, did not cease deeply to perturb the minds of the German commanders.

TIRPITZ'S SECOND PROPAGANDA CAMPAIGN

So deep had been the haunting uneasiness of that self-contradiction that it might well have led the officers of the German Navy to penetrate to its roots and realise the manner in which they had been misled and sacrificed by Tirpitz's great gamble, if they had been permitted to study that story undisturbed. But once again that arch-intriguer interfered. Undaunted by the complete refutation of his entire policies, political and military, by the outbreak as well as by the course of the War, he was promptly back again immediately after the collapse, to meet the impending criticisms head-on and uphold his actions, in the teeth of

events and evidence, to the last inch. His skill in the manipulation of documents and formulas had always been uncanny; but in this, his second great propaganda campaign, from the publication of his memoirs immediately after the collapse in 1919, to his death in 1930—which in contrast to his activities as Secretary of the Navy has received wholly inadequate attention, particularly outside Germany—he surpassed himself; not so much in his memoirs which played so false and loose with the facts that within a few years he had tacitly to disavow them, as by the masterly “publication” of his “Documents” in three sections—1924, 1925, 1926. When he realised that no plea of patriotic interest would prevent the German Government from making public the materials on the Anglo-German naval rivalry preserved in the archives of the Wilhemstrasse, with characteristic resourcefulness he decided to counteract it, as far as possible, by at least getting his own version in first. Those papers, as we have endeavoured to show above, formed from the outset a most curious and equivocal material. Nearly all of them serve beyond their professed intention one, frequently two or even more, skilfully concealed purposes, which only a systematic and exhaustive analysis can ever hope to bring to light again, at least in part. But Tirpitz, by a few deft touches, by skilfully disarranging the sequences and breaking up the inner connections between the individual documents; by leaving out just one or two all-enlightening pieces; by scattering others over different publications; by a remanipulation of emphasis with the help of a running acid commentary and the simultaneous use of no less than six different forms of type; last, but not least, by boldly risking the most patent contradictions in the justified confidence that his critics would fail to spot them; was able not only completely to confuse the real significance of his political and military schemes, but even to substitute for them a seemingly convincing picture and to create a wholly deceiving impression of having frankly placed all his cards on the table.

In this, his second great campaign of propaganda, Tirpitz, retired since the spring of 1916, no longer could officially command the resources and institutions of the German Admiralty. But the unofficial support and encouragement of every conceivable nature, which he received from the new German Navy in this work of wholesale mystification, was hardly less wholehearted or enthusiastic. In part this was simply the result of the fact that its leaders belonged to his closest former adherents; in particular Admiral von Trotha, who steered the new “provisional navy” of the Weimar Republic through its first stormy days. But quite apart from the personal factors which, because they are mostly so intangible, it would be highly unwise to disregard either then or later, the objective exigencies of the situation in which the new German Navy found itself placed after the debacle would alone have forced it to

endorse and propagate the legend so skilfully woven by the "father of lies," whether it liked him or not. For the defeat had left it—unlike the Reichswehr, which, under the brilliant leadership of Seeckt, succeeded in regaining under the Republic a position in the state far transcending that which it had ever held under the monarchy—after the loss of the German colonies and world power, without even the ideological bases for its existence, far less with any demonstrable necessary function. To permit in these circumstances the development of any doubts as to the correctness of Tirpitz's original policy would have meant a *fortiori* a fatal weakening if not the destruction of its own incomparably more precarious position.

Thus the whole official and even more unofficial weight of the new German Navy was thrown behind Tirpitz's campaign. The official History, which had been taken in hand immediately under von Trotha, was nothing but a continuous echo of and apology for his views, in particular the central series of volumes on the struggle between the two main fleets from the able pen of Otto Groos. From the official History downward, the "accepted version" trickled down through popular accounts, personal reminiscences, the articles and reviews of retired naval officers in the daily press, until it had percolated the entire German concept of that struggle and against their will influenced the minds even of his most embittered and lynx-eyed critics.

To complete the soporific influence of that campaign, pursued with systematic and untiring energy, the startling successes of which became apparent on such occasions as the halting and pointless criticisms put forward at the time of his decease, a highly unofficial, yet no less effective system of terror wielded in the first place by some of Tirpitz's closest adherents, served to suppress by calumny, or by ridicule, or—if nothing else would serve—by a most effectively organised conspiracy of silence to render innocuous, anybody who had been rash enough to express views denoting a deviation from the official line or to begin to expose, in however moderate and respectful a manner, its glaring contradictions. The invariable result of this system of terror, the effectiveness of which can only be appreciated by those who have had opportunity of watching it from behind the scenes, was the general monotony and stagnation in the intellectual development of the new German Navy, during the first eight years (1918-1926) contrasting most strikingly with the brilliant intellectual revival, the untrammelled freedom, even if at times overrash criticism which the Reichswehr was experiencing at the same time under the intensely stimulating leadership of Seeckt.*

*The limited scope of this study unfortunately prevents us from pursuing this enquiry into a most pertinent and most highly important issue: the manner namely, in which the propaganda

WEGENER

This stagnant atmosphere was suddenly, in 1926, set into violent commotion by a startling memorandum from the pen of Vice-Admiral Wolfgang Wegener (ret'd.). Already, during the World War, Wegener had made himself known in the staffs of the German Navy by his passionate advocacy of solving the German High Sea Fleet's dilemma by the occupation of Denmark. This, he argued, would give Germany not only full control over the economic resources of that country, above all, it would enable the High Sea Fleet at last to menace a trade route of some importance to the British, the Scandinavian trade route through the Kattegat and Skagerrak. Thus it would force the British Naval Command either to attack them there under adverse circumstances, or accept loss of that trade route and, even more, the concurrent loss of prestige with the Scandinavian powers.

After the defeat, the continued pursuit of these ideas had gradually led him to the conclusion that the material and even more psychological helplessness of the High Sea Fleet during the World War had not been, as Tirpitz and the Official History endeavoured to prove, merely the accidental result of the personal inadequacies and conflicts between the responsible leaders. Something fundamental had been wrong in the German Navy's outlook. In seeking obstinately for four long years a purely *tactical* decision against the Grand Fleet, the German Naval commanders had completely lost sight of the *strategic* situation, and hence of the true significance and purpose of naval warfare. The fact, namely, that the *raison d'être* of a fleet did not consist in running "strategically senseless" victories over the enemy's armed forces, but in the struggle for the control of the vital trade routes and the maintenance of its country's oversea communications. Thus, in staring as if hypnotised at the "strategically empty" North Sea, the German naval commanders had completely overlooked that the solution for all their perplexities lay under their very noses. The occupation first of Denmark, then, from there, of southern Norway, bringing the High Sea Fleet within striking distance of the British blockade and of its pivotal base at Scapa Flow, would have assured to it that battle under favourable conditions, which it had been seeking in vain in the North Sea. Above all, whatever the outcome, it would at least have directed its effort towards

(Continued)

methods evolved by Tirpitz and the young men of his *Nachrichtenburo* have served as a basis for the Nazi leaders in their much more ambitious but hardly more brilliant endeavors. Although this debt has even been officially recognized by the Nazi leaders in one or two places, the underground current which leads from Tirpitz's methods to Hitler's and from his *Nachrichtenburo*, which during the First World War furnished the nucleus of trained personnel for official German propaganda, to Goebbels's ministry, have rarely been recognized and never adequately traced and exposed.

its true and primary mission, the breaking of the British strangle-hold and the opening up of the "door to the Atlantic" for German oversea communications.

The quest for the hidden causes of such strange blindness led Wegener backwards to Tirpitz's "risk theory," the diplomatic cant of which he accused of having—for the sake of self-contradictory and inachievable political objectives—crippled the German Navy's strategic insight and imparted to it a subconscious defensive outlook, to which its pronounced *tactical* offensive "will to battle" had been but the instructive compensatory reaction. Steeped in the German tradition of land warfare and its fundamentally different conditions, the German Navy had failed both to detect the obvious strategic fallacies of that doctrine and its own total atrophy of strategic purpose; and thus had remained, intellectually, a mere coast defence force.

It is easy to understand the force with which these bold contentions, couched in monumental, gripping, if somewhat repetitive, language, hit the German Navy. After four years of hopeless perplexities during the War, eight further years of repression and bitter disputes as to the causes of the defeat, it was as if somebody had torn open a window in a sick-room and let in a fresh Atlantic breeze. Wegener's basic criticism, the failure of the German commanders to understand the strategic situation confronting them, hit the nail on the head. His shrewd attacks upon the pernicious influence of the "risk theory" and of the familiar conceptions of land warfare, as responsible for that failure, came so near to the truth that only by the most comprehensive knowledge of the facts and elaborate analysis of his arguments could it be realised where they missed it by inches. His shifting of the discussion from the question where, when, how, the High Sea Fleet might have brought the Grand Fleet to battle, to the decisive issue of the maintenance of the German transatlantic lines of communications had the effect of an absolute revelation. The more so, as Wegener, while thus at long last laying his finger upon that critical issue of Anglo-German naval relations, which Mahan had seen so clearly—and which Tirpitz had tried to evade with such disastrous consequences—succeeded at the same time in evading it again, although in a much more subtle manner than Tirpitz. By recognising *in principle* all three factors which had made up the strange compound of the German Navy's plight in the World War—numerical inferiority; inferior strategic position and lack of strategic insight and will—but in concentrating his discussion one-sidedly upon the second and third of them alone, Wegener concealed, from himself no less than from his readers, that the *basic* reason for Germany's failure to maintain her transatlantic communications "against Britain" had been her inability to provide the vastly superior naval force needed for this, and only to a

secondary degree to her inferior position and lack of strategic understanding.

Thus, with all his penetrating criticism, he missed the basic fallacy in Tirpitz's dream of a great German Sea and World Power "against Britain," and in consequence was able in the same breath to castigate the errors in its execution and yet emphatically re-affirm that aim itself; and, what was more, was able to imbue his readers with the impression that that bid had failed not because of its inherent impossibility, but because of avoidable errors in its execution. To the new German Navy his small study became something in the nature of a gospel; relieving it from fruitless searching into what had passed, giving it a task for the present, a goal for the future and, above all, a strangely messianic hope. As with the prophets of old, recognition and condemnation of the errors of the past seemed to hold, not only the hope, but almost the certainty of a glorious resurrection.

Thus the result of Wegener's courageous attempt to lead the German Navy out of the maze in which Tirpitz had left it was in the end merely to plunge it into another confusion, nearer to the truth, more subtle, and hence in a way even more dangerous. Because he too, in his turn, shut his eyes to the unpleasant fact that Germany could never hope to secure "command" in the narrow seas against the superior sea power of Great Britain, his claim that the German Navy's true mission lay in the Atlantic in the securing of Germany's vital transatlantic lines of communication—"against Britain" as he expressly re-emphasised in the political conclusions, not made public until the second edition of 1941—remained in practice an empty postulate, a hollow mockery, nay, worse, a delusive will-o-wisp. For although the leaders of the German Navy naturally could not disregard that hard fact as conveniently in reality as he could on paper, his shadowy, equivocal and even contradictory conception of the "command" itself served not only most effectively to conceal the full extent of that contradiction; but above all, to provide the starting point from which the German Navy, between 1926 and 1939, succeeded by a series of highly ingenious, almost imperceptible, steps to emasculate that most inconvenient postulate to such an extent that by the outbreak of the present conflict they had ended in reducing it into the very opposite of what it was meant to stand for, while still all the time continuing to pay lip-service to its letter.

The point which Wegener, with all his emphasis upon the decisive role of the *struggle* for the command, had completely missed—partly because, like all German naval writers, he had never taken the trouble really to analyse it, and partly because of his disregard of the factor of relative strength in favour of one-sided emphasis on the geographical factor—was the *exclusive character* of the "command." The fact that "command"

can be established only by control of the opponent's main forces, not by any local and temporary control over a geographic area, trade-route or line of communication, into which the enemy can break in at any moment with, at least locally, superior forces. That, therefore, either "command" is thus established by one of the belligerents over the other, one-sidedly and exclusively, or else that there is no "command." Wegener, on the contrary, by his very emphasis upon the *struggle* for the "command" unconsciously tended to substitute that *two-sided struggle* for the *one-sided and exclusive "command" itself*, going, in one passage at least, as far as to describe explicitly the *struggle* for the "command" as its *exercise* ("*Seeherrschaft treiben*"). By this shift from the "command" to the struggle for it, and again from "command" over an opponent to "command" over a geographic area or trade route, Wegener was led to regard "command" as something that could be localised, and hence divided, until he finally arrived at that most dangerous and misleading identification of "command" with the "control of sea-communications." The bulk of his references to the "command" remained indeed a clear and unambiguous, if somewhat abstract and shadowy, insistence upon the paramount necessity of acquiring "command" *for oneself*. But through this process of almost imperceptible subtle shifts, that concept had been so "softened up" that it became possible for his adherents in the course of the ensuing decade to identify *his* identification of "command" with the "control of the vital sea communications" as the true purpose of naval warfare, in *their* turn *first* with a state of affairs in which *neither side* sought any longer for the "command"—both restricting themselves to the mutual attack and defence of their convoys—as the French admirals in the 18th century had sought to conduct naval war—and *finally* with "economic warfare," pure and simple; that is with the explicit or implicit acceptance of the *enemy's* "command" and the attempt to undermine it by a "trade"—or "tonnage warfare" waged with the help of the submarine and the surface raider.

ASSMANN

The man who completed that process started by Wegener was Assmann. It would be difficult to imagine two more different personalities. The predominant impression which one gains from Wegener's writings is that of a boisterous vitality and self-confidence brusquely brushing aside any facts not inclined to fit into his scheme of ideas. The predominant impression with Assmann is, on the contrary, that of a conscientious scholar, forever torn between his profound reverence for the established authorities, in particular his profound reverence for the Tirpitz and his legend, and the distressing realisation that the documents,

which it was his duty as head of the German Navy's archives and historical service to collect and interpret, so frequently ran directly counter to it. That conflict between his innate sense of loyalty and his very obvious profound regard for the truth, as well as his vain endeavours to reconcile the irreconcilable, make his earlier writings, above all his three great studies on Tirpitz's policy and the German Navy's Strategy in the First World War (*Militärwissenschaftliche Rundschau* 1939, No. 2, 3, 4), a kind of perpetual jigsaw from which it is well nigh impossible to ascertain clearly the ultimate drift of his own ideas. Distressing as this inner conflict, which we can grasp so to speak almost *in action*, is for the analysis, it is at the same time most highly illuminating. For it reveals, better than any other document of present day German naval thought, the roots out of which, in the years immediately preceding this conflict, grew that "new conception of naval warfare" that was to animate German naval policy and strategy before and during the first half of this war; and which Assmann himself, by a tragic irony of fate, was finally to codify in his "*Wandlungen*," a few weeks before its spectacular break down in November, 1942.

Like Wegener, Assmann realised that the German Navy's perplexity in the First World War was rooted in Tirpitz's preceding policy and strategy. But, as head of that force's historical service he also knew that that policy had been far more complex than Wegener with his sweeping iconoclastic zeal had ever realised. Not only that alone among all German naval historians and critics he followed it right back to Service Memorandum No. 9, but, what was even more remarkable, he actually realised and conceded that the offensive strategy with a superior fleet envisaged by Tirpitz in that document was in fundamental and irreconcilable contradiction with the hopeless numerical inferiority in which the fleet, built up by him on the ideological basis of the "risk theory," had found itself in August, 1914. So much so that he found himself compelled to reject emphatically all the fantastic claims put forward after the defeat by Tirpitz himself and his adherents as to the glorious opportunities which the High Sea Fleet allegedly had missed during the first months, and to assert most bluntly that the High Sea Fleet's "chances" at that time consisted merely in the fact that its prospects continued still further to deteriorate as that conflict drew on. For that same reason, Wegener's parallel attempt to brush aside the basic factor of the German High Sea Fleet's numerical inferiority airily with his ingenious suggestion of a move northwards into Denmark and Norway, did not apparently convince him; although he conceded that it would undoubtedly have improved its position.

Thus, after Tirpitz and Wegener, it was now Assmann's turn to face that inexorable sphinx, which we have tried to designate briefly as the

"Anglo-German naval dilemma," and to try to solve its riddle. But, although in his approach he had shown a far keener perception of the decisive issue of basic strength than either of them, he too in his turn, at the last moment preferred to swerve aside, and to seek an outlet by yet a third and even more remarkable evasion. Just as Wegener, Assmann too recognised, in principle, all three elements in the German Navy's hopeless plight during the First World War: numerical inferiority, inferior strategic position, lack of strategic insight. But, whereas Wegener's solution had been to stress one-sidedly the second of these three factors, Assmann's consisted in stressing the third, the intellectual perplexity. Psychologically, this was only too understandable in a man, who more than anyone else was familiar with the official as well as private correspondence of the leading German naval commanders, and with the perplexity reflected in it. That perplexity, he too was inclined to attribute in part, though to a less absolute degree than Wegener, to the cramping effect of the defensive ideology of Tirpitz's "risk-theory"; but beyond that, and primarily, to the fact that the British countermoves, both political and strategic, had taken Tirpitz and the other German naval strategists completely by surprise. In this manner he was able to reconcile to his own satisfaction his inner conflict and explain away the two inconvenient factors, which he could not deny: the hopeless numerical inferiority of the German High Sea Fleet of 1914—by claiming that Tirpitz's "risk theory" had envisaged at the worst a straight naval duel with Britain, not a fight against practically all major sea powers of the world combined—the factor of its having been caught in a hopeless strategic situation—by presenting the shift in British naval strategy from the close blockade upon which Tirpitz had based all his plans to the distant blockade at Scapa Flow, as an utterly unforeseeable radical change in the entire purpose and methods of naval warfare.

While thus able to reconcile his acute consciousness of these two factors with his undiminished reverence for Tirpitz, Assmann involved himself unconsciously in a whole sequence of subtle misunderstandings leading him in the end to otherwise inconceivable conclusions. By emphasising the surprise element in the British change in 1914 from their previous system of close- to long-distance blockade, he expressly denied the organic continuity between the traditional British system of naval strategy forged in the course of centuries and this new development from it, and thus was led to exaggerate what had only been a change of *method* into a radical change of *purpose*. For failing to realise clearly the pivotal role of that long-distance blockade within the British system of "command" in all its manifold aspects—both as the basis of the defence of British and Allied sea-communications, as well as of offensive military actions all over the world and of economic blockade—he seized

one-sidedly upon that last aspect alone, and thus he was led to see in it a new British system of naval war as *economic warfare* which he thus opposed to a, wholly fictitious, *former* system of naval warfare characterised predominantly by *military* action. The result of this fundamental misreading, first of the evolution of naval warfare and second of the organic unity of the basic factor of the "command," was thus that Assmann substituted for Wegener's opposition between: "naval strategy based upon battle-as-such" and "naval strategy (correctly) based upon the struggle for the command" his own opposition of "military naval warfare" (prior to 1914) and its allegedly new conception as "economic warfare," according to him, introduced by the British with their turning to the "long-distance strangulation blockade" of 1914, and further confirmed in his eyes, first by the decisive effect of that measure, second by the continuously increasing significance of the economic factor in modern total warfare.

While there was thus just enough truth in that deduction to make it appear plausible and even superficially convincing, it led Assmann, in practice, to the renunciation of all that which Wegener had just been striving to hammer into the German Navy. For by identifying his new abstraction of "naval war as economic warfare" with "trade-warfare" and finally with mere "tonnage-warfare" he arrived at the point where he substituted for the struggle for the control of sea communications through the establishment of one's own command, the acceptance of the *enemy's* "command" and even the avoidance, as far as possible, of any engagement with his armed forces in favour of the exclusive concentration upon the sinking of his merchant shipping as the most direct and most consequent application of that "new conception of naval war as economic warfare." Thus, with him, the pendulum of German naval thought, started by Tirpitz, had swung through its whole arc; from the extreme purely military conception of naval warfare as the struggle for a decisive battle, with Tirpitz and the German commanders in 1914-18; through Wegener's intermediate, but as we have tried to show, inadequately classified emphasis upon the correct objective of the struggle for the "command," to Assmann's opposite extreme of one-sidedly "economic warfare."

And yet so subtle had been the steps by which that latter evolution had taken place that as far, at any rate, as we can judge from the documents, neither Wegener nor Assmann—nor for that matter anybody else in the German Navy—appear to have realised that while using almost the same terms—for Assmann with all his emphasis upon "economic warfare" by no means dropped the concept of the "command"—they were standing in reality for diametrically opposed strategies. In fact, Assmann was even able to take up, as we have seen in our opening

passage, Wegener's messianic message—although with a profoundly changed content. For by emphasising as he did the *surprise* effect of the alleged British turn in 1914, to the new economic naval warfare, he was led quite unconsciously to the gratifying conclusion that, by the shock of that radical innovation, the German Navy had been driven to analyse its causes down to their deepest roots; that it had developed its implications systematically to their extreme conclusions and thus had been able to understand its significance even better than its originators. So that, as we have quoted above, he could end his study with the undoubtedly genuine conviction: "We will win this World War, because we lost the First."

GERMAN NAVAL POLICY

These ideas, developed by Assmann in his *Wandlungen*, constitute the common denominator of German naval thought between, roughly, 1936 and 1942; not in the mechanical sense that they represent a blindly-accepted doctrine from which no divergences were tolerated, but in the broader sense of a medium line around which contemporary German naval thought oscillates in endless variations and permutations.

Despite this variability on the surface, the consensus of opinion on the main issues over the entire range of German naval writing is so striking as inevitably to raise the question whether this is but a *fable convenue*—as was, for instance, certainly the case with the emphatic protestations between 1935 and 1938 that Anglo-German Naval Agreement had eliminated even the idea of a possible conflict between the two nations—and whether in that case Assmann's own contribution to it, as the Head of the German Navy's Historical Service, has been anything more than that of providing this pre-arranged fable with the necessary systematic and historical rationalisation. As seductive as this tempting hypothesis may appear at first sight, internal evidence seems to us to point the other way. With all deduction of the elements of propaganda which are undeniably discernible in Assmann's studies it seems to us that they contain a solid core of genuinely held views—which may not be held any less genuinely, because they happen to coincide with some eminently fruitful propaganda line. To take the basic quotation from which our investigation started, Assmann's emphasis upon the contrast between the errors of German strategy in the last conflict and its superior wisdom in the present coincided without any doubt with one of the main lines of German propaganda in the military and the political as well as in the naval field. Yet the close analysis of Assmann's arguments leaves one with the strongest impression that, however devious the routes by which he reconciled the conflicting elements of his thought, and

however curious the results to which they led him, he did genuinely believe in them, and by virtue of his office was able to convert the leaders of the German Navy to them. That impression is strengthened to a definite conviction, when we further observe how these results, very far from representing a mere rationalisation of what the objective situation of the German Navy would have counselled, have tended again and again to divert its strategy from the most reasonable and hopeful course, precisely under the fatal influence of that "new conception" of naval warfare in which Assmann and, with him the German Navy, believed they had found the key to victory.

Following this line of thought, the first, the foremost, the most striking discovery about the influence of German naval thought, of which we have tried to retrace the main stages above, upon the German Navy's course both before and during the present conflict is that the German Navy *had* a policy. That it did not live, as has so frequently been alleged, from hand to mouth, shifting its ideas and objectives from one of the *Führer's* kaleidoscopic political *volte faces* to the other; but that underneath all these manoeuvres on the surface there ran, once again, as it had been with Tirpitz, the steady undercurrent of a consistent policy as amazingly far-seeing in its long-range perspective as short-sighted in its failure to realise its most patent errors.

The second startling discovery, closely linked up with this first one, is the fact that this long-range policy of the German Navy did *not* imply, as the Anglo-German naval agreement of 1935 expressly protested, a break with, a renunciation of the political objectives aimed at by Tirpitz; but, on the contrary, their resumption, with the modifications made necessary by the realisation of the errors in this policy and strategy. In that respect the passage in Wegener's memorandum of 1926, suppressed in its first publication of 1929, but restored in the second of 1941, is most highly illuminating. For in this, the political implementation of his critical analysis, Wegener with his characteristic bluntness pointed out that although the foremost necessity of the German reconstruction would have to be the re-establishment of the "continental basis," the German Navy would have to see to it that the real objective, the re-establishment of Germany as a World and Sea Power, must not be obscured thereby. With the resumption of that objective, Germany would, therefore, certainly find Britain again her natural opponent bent upon stifling her in her weakness, and thus would see herself forced to seek her development to full stature "against Britain," and after that "against the transatlantic world of the United States." So convinced was he of that necessity that he went even so far as to indicate in outline the steps that would have to be taken in order to conduct that new struggle with better prospect of success: the need for the use of the French

Atlantic ports, which at that time, in 1926, he could not imagine Germany would ever be able to acquire by force of arms, and which in consequence he envisaged securing by diplomatic means, possibly an alliance with France.

These long-range political and naval perspectives put forward by Wegener in 1926 formed the dominant influence upon the inner course of German naval policy; certainly so from 1933 onwards, when Adolf Hitler, who until his accession to the leadership of the Third Reich had taken little interest in naval affairs, was so struck by them that Wegener became a kind of unofficial confidential adviser; his memorandum became known in German naval circles as "Hitler's naval bible." Yet, to an even higher degree than at the time of Tirpitz's great bid for sea power against Britain, their influence and even existence remained almost completely unsuspected by outside observers, because, in contrast to the period between 1897 and 1914, for several years, until Munich, the course both of the *Führer's* own policy and even more that of the Army, seemed to point, and probably did point, in exactly the opposite direction. Moreover, the very weakness of the new German Navy, both *vis-à-vis* Great Britain, as well as within the framework of the *Wehrmacht*, dominated by the Army, to which the third partner, the *Luftwaffe*, formed little more than an appendix, seemed to reduce it automatically to the role of second fiddle and to preclude the possibility of its trying again to conduct a policy of its own, far less of its aspiring to determine, once again, the direction of German policy as a whole. It is well open to doubt whether even the leaders of the German Army ever knew, or if they knew, clearly understood the extent to which the German Navy had taken up again Tirpitz's fatal heritage.

GERMAN NAVAL STRATEGY

This unsuspected independence and scope of the German Navy's policy was due as we have seen, in the last resort, to its belief in its superior strategic insight, by which it hoped to offset its material weakness and felt confident of forcing a successful issue even against the vastly superior forces of the two Anglo-Saxon powers. It was a strange delusion, and the strangest part about it was that neither Assmann nor any one else seems to have realised that this strategy of "economic" or, further still, of "tonnage warfare," in which they believed to hold the key to victory, was in reality the most uneconomical, the least direct, the least "strategic" of all forms of strategy conceivable. The least "strategic" because it was meant to achieve success not by the utmost concentration of its blows against the key joint, or joints, in their opponents' armour, but by the slow piling up of innumerable separate

losses imposed upon his shipping space by the incessant hammering of all forces: commerce raiders, submarines, planes and mines, until eventually his economic power of resistance would succumb under their accumulated weight. This misunderstanding was all the more remarkable, because in addition to thus running counter to the natural tendency of strategy towards the utmost concentration of effort, it specifically ran counter to the particular exigencies of the concrete position in which the German Navy found herself. For while it was obvious that she could not possibly hope to acquire for herself the "Command of the Sea," it was by no means equally obvious that in those circumstances her best policy would be to rush straightaway to the opposite extreme. On the contrary! By keeping her few powerful units strictly together and striking with them at the vulnerable points in the Allied system, the great transatlantic convoys, she might at least have *disputed* the Allied "command" to an extent sufficient to create considerable disturbance and seriously impede its functioning.

The failure of the German naval strategists to see this most obvious situation was not merely the result of their self-hypnosis with the will-o-wisp of their new "economic warfare." In twenty years of passionate discussion they had turned round and round, first the merits of Tirpitz's naval policy and German naval strategy during the First World War, later the change from the old "military" type of naval warfare—to the new "economic." But once only in all those years had the most independent spirit amongst them, Admiral Donner, devoted a single brief article to a necessarily inadequate analysis of the British system of "offensive defence." Nobody ever thought of following him, and even so conscientious a scholar as Assmann based his entire theory upon the shift of British naval strategy from the close to the long-range blockade in the First World War in complete ignorance of the most elementary facts about that event. In this respect, therefore, German naval theory had remained behind the much-decried *Jeune École*, which had had at least the merit of having based its ingenious proposals for the disruption of the British system of blockade, upon a close and accurate study of it.

This amazing failure of German naval strategists to base their attack against the British system of "command" upon a clear, detailed analysis of that system did not take the form of a neglect of the surface warship in favour of the new weapons, the submarine and the plane. On the contrary! The whole of German naval discussion shows that it was this activity of the surface units which held their main interest. Where German naval strategy seems to have gone hopelessly and fatally wrong in this war was apparently not in any lack of emphasis upon the role of the surface ships as in the method of their employment; in failing to envisage and use them as an instrument for the dispute and, if possible,

disruption of the Allied "Command" and in persisting in relegating them instead to the subordinate function of mere commerce destroyers (*Handelsstörer*), in which their strength was wasted on nothing higher than to add their mite to the increasing toll of Allied shipping.

Instead of conserving these precious heavy units for the concentrated attack upon the Allied system itself, German naval strategy persistently squandered them away in isolated packets and upon secondary missions, for which light cruisers or auxiliary cruisers would have done equally well. Thus, at the outset of the war the *Panzerschiffe* were immediately sent out into the Atlantic, apparently with no other objective than to distract as many Allied cruisers as possible from the narrow seas and thereby facilitate the running of the Allied blockade by German merchantmen caught overseas by the outbreak of the conflict; with the result that the defeat of the *Graf Spee* off the River Plate cost the German Navy not only that ship, but, what was infinitely more, the nimbus, which up to that time had surrounded the "pocket battleships." Similarly the sending out, first of the *Scharnhorst* and *Gueisenau*, and later of the *Bismarck*, upon commerce raiding missions into the Atlantic ended with the prolonged laying up of the first two at Brest and the loss of the latter vessel; all three of which a few months later might have proved invaluable for concentrated attacks upon the Murmansk convoys. Moreover, the moral shock of these disasters was such that, although the German naval High Command eventually did succeed in the following spring in re-concentrating most of its remaining heavy ships in its Norwegian bases, it was no longer willing to risk them, and from that time onwards contented itself with the effect which, by the mere threat of their existence, they exercised in tying down the Home Fleet.

In fact, so obsessed was the German naval high command with its new conception of "commerce warfare" that, in order to pursue it with the utmost consistency, it appears to have imposed upon its raiders strictest injunctions not to engage in any clash with the Allied forces if they could help it. Even the submarines were apparently not permitted to direct their attacks against escorts until the autumn of 1943, when their primary campaign against Allied merchant shipping had signally broken down. While undeniably "in line with" the general direction of German naval strategy to wage this war as pure "commerce warfare," it was nevertheless a psychological blunder of the very first order, the fatal results of which were to prove themselves in such actions as the Battle of the River Plate, the last sortie of the *Scharnhorst*, and the simultaneous defeat of the German destroyers in the Bay of Biscay.

Nor was this the only, or even the primary, psychological error in the calculations of the German naval high command. For, by adopting this strategy of pure commerce raiding, they were actually accepting, and

submitting to, the Allied "Command." That fact, and even less, its psychological implications, may not have been clearly realised by the men who devised and directed that strategy—but to the men who had to wage the struggle within the net of the Allied forces its grim reality was only too plainly evident. Hence that significant tendency, most clearly revealed in the reports of the survivors of the ill-fated *Bismarck*, to swing violently between a state of exuberant elation at the realisation of their dream of waging true oceanic warfare in the open Atlantic, and the painful realisation of being "out of bounds" there.

This failure of the German naval commanders to appreciate and allow for the inevitable psychological handicap of the inferior belligerent at sea, struggling in the toils of its opponents' relentless grip, was complemented on the other side by their failure to understand either the psychological strength or the resilience of the British system. What they totally failed to understand in their abstract calculations was the secret that in the last analysis the "Command of the Sea" is not so much a material fact as a state of mind. That, therefore, not only does it give those who represent it a sovereign feeling of superiority even in the face of hopelessly superior odds—from the *Rawalpindi* and the Narvik destroyers to the *Jervis Bay* and that corvette which signalled that she was about to engage the *Scharnhorst*—but such a system, firmly founded upon an unbroken tradition reaching far back through the centuries, is capable of going on for a long time even when everything appears to conspire to bring about its collapse.

Because of these fundamental psychological errors the German naval commanders tended continuously both to over-estimate the diversionary effects of their attacks as well as to under-estimate the elasticity and recuperative power of the British system. The result was that, blinded by the remarkable ingenuity which they had undeniably displayed in the strategic and technical staging of their submarine and air campaigns against Allied shipping, they indulged in excesses of wishful thinking all the more fatal in view of their simultaneous under-estimate of the titanic achievement of American industrial mobilisation. Never were those dreams more rosy, that conviction of victory more genuinely certain, than during those days in October, 1942, when Assmann crystallised them in his study, not more than a fortnight before the turning of the tide was to show up their hollow unreality to all the world.

GERMAN MARITIME STRATEGY

The fatal effects of these fundamental miscalculations of the German naval commanders did not remain confined to their own sphere. In contrast to the situation in the First World War when the German Army

and Navy had virtually been fighting each its own particular war, in this conflict they, together with the new third partner, the *Luftwaffe*, have been closely co-ordinated under the supreme directive organ of the *Oberkommando der Wehrmacht* established in February, 1938. Within this supreme directing agency their respective influence, while nominally equal, has not been the same. The Army, as the senior as well as obviously the most vital of the three Services, inevitably has dominated the other two; staffing nearly all the key posts, except the Intelligence, and most of the minor jobs with its men. But the Navy, nevertheless, has succeeded in maintaining a measure of independence considerably greater than that of the *Luftwaffe*, particularly so as in the building up of the new tridimensional doctrine it had been frequently able to negotiate between the widely-opposed views of the Army and Air Force (Otto Groos).

This closest organisational integration of all three Services into a single body, the *Wehrmacht*, was, however, vitiated by the various internal tensions between their ideas, not less, but even more fatal, because their full extent has probably not fully been realised by anyone of those concerned. The first and foremost of these semi-concealed inner tensions between the Army and the Navy has been the fact, already touched upon above in connection with the divergences in their pre-war policies, that they have been waging the war each against a different enemy; the Army primarily against the menace of a war on two fronts by a Franco-Russian combination, particularly, however, against the latter power, about the tremendous progress of which it had no illusions; the Navy, as we have seen, in the first instance "against Britain," and thereafter against the combined might of the two Anglo-Saxon sea powers.

In the first stages of the War this fundamental divergence in the appreciation of the "real enemy" and consequently of the entire strategy of the conflict, does not appear, as far as we can see from the material at our disposal, to have given rise to any serious friction. The Polish campaign was obviously an army-air-force show. In the Norwegian campaign the interests of the three services were not absolutely parallel, those of the Army being predominantly defensive, to secure its northern flank, before it started on its great drive in the West, while those of the Navy and Air Force were both defensive and offensive, predominantly, however, the latter. Moreover, the Navy had to bear the brunt of the cost, but as it gained thereby that Norwegian springboard upon which its attention had been riveted ever since Wegener's Memorandum of 1926, it could not and did not, in fact, grudge the price. In France the Army carried through the first half of its program, but coincidentally secured thereby for the Navy those ports on the Channel and, even more, the open Atlantic, without which, as we know to-day through Assmann, the

naval commanders had notified Adolf Hitler years before the War, they could not hope to carry their war against Britain to a successful conclusion. The defeat in the Battle of Britain is still too much obscured in its strategic background for it to be possible to define the relations of the three services with respect to it; although it seems as if the driving factor had been the *Luftwaffe*, while the Navy, which had a better estimate of the unbroken strength of British Sea Power, preferred apparently its own chosen process of slow strangulation. The turning away from Britain after that defeat and against Russia, was an obvious setback for the Navy and a triumph for the Continental School, but here again the Navy found a way of integrating that move into its own radically different picture of the War, by stressing the fact that its purpose was to secure Germany's back for the decisive struggle against the two Anglo-Saxon powers, as well as to make Germany finally blockade-proof by the conquest of the Ukraine and the Caucasian oil fields (Assmann) or else by arguing that Germany was finding herself midway between two antagonistic tensions, one continental, against Russia, the other oceanic, against the Transatlantic World (Donner). At the same time the Navy could claim that its war upon Allied tonnage and, even more, against the vital Murmansk convoys, contributed signally to reduce the assistance which the Western Allies could give Russia in her life and death struggle with the German Army.

These ingenious compromises between what remained at the bottom diametrically opposed tendencies—which we find repeated in endless permutations through the whole of German naval literature—served most effectively to conceal from the *Wehrmacht* that there was actually one line along which these divergent interests of Army and Navy could have been brought to coincide in an almost ideal congruence: in the Near East. If, after the fall of France, Adolph Hitler and his strategic advisers had had the insight of striking with all their overwhelming power and prestige south-eastwards, instead of engaging in the mad gamble of the Battle of Britain, they might have been in the position of checkmating thereby, simultaneously, both the Kremlin on the one hand, and the Empire on the other. That they failed to realise this unique opportunity and cardinal fact of the maritime strategy of the situation, which was so acutely felt in Britain, was in the last resort due to the fact that the German Navy, whose responsibility these extra continental issues were, had failed as signally in studying the maritime strategy of the Empire as it had failed to analyse the British system of "Command." Add to this the barely concealed German contempt for their Italian partners and we can understand why, during what were perhaps the most critical months of this war, German strategy first completely neglected the vital developments around the eastern rim of the Mediterranean, and, when it

finally decided to take a hand in them, saw in them mainly an unpleasant distraction from its real objective, the conquest of Russia. Nor can the relative indifference with which it subsequently followed the ebb and flow of Rommel's campaigns in the crucial North African theatre be attributed to the undeniably tremendous difficulties of supplying even his handful of divisions across the Mediterranean in the teeth of the Mediterranean Fleet and of the Royal Air Force. For again and again in this conflict has the German General Staff demonstrated its ability to overcome seemingly almost insurmountable obstacles, if only the urgency of the issue has been plainly evident to it.

In the last resort this failure of the German Navy and, with it, of the *Wehrmacht* as a whole, to realise the crucial significance of the Mediterranean campaign was but the ultimate outcome of its key obsession: the idea of "economic warfare" which was to prove, if possible, even more fatal in the wider maritime field than is that of naval strategy proper. Because the German Navy saw in the expansion of this conflict to hitherto unheard-of-global dimensions, nothing but a quantitative expansion of the "economic struggle" up to a global scale, it not only missed the military significance of the struggle for the Near East, but, above all, failed to grasp the greatest, all-embracing issue of the wartime strategy of this War: the question of the struggle between the two coalition groups as a whole. The very separation of the two parts of the Axis should in itself have been the most cogent incitement to them for the concentration of their efforts upon the one task of joining hands across the Indian Ocean and Continent—quite apart from their appreciation of its effects upon the global framework of Allied strategy. But of all the many German naval writers, only one (Otto Groos) appears to have seen something of the crucial importance of that move, and even he only dimly; whereas with the others, and particularly with Assmann, the overall picture of the Axis strategy which we encounter is that of two separate and self-sufficient areas, each seeking to maintain itself in control of its own against the Allied counter attacks; confining their collaboration to an exchange of experiences and economic products, as well as to a mutual, world-wide diversionary action. On the one occasion where Assmann actually speaks of the need for the two partners to join hands across the intervening areas it is expressly within his general context of "economic warfare" and primarily with the purpose of increasing their opportunities for their mutual economic support.

Thus we can see clearly in retrospect how, in those critical weeks after Pearl Harbor, the two coalition groups moved in diametrically opposite directions. The two Axis groups remained apart, in spirit no less than in space, each of them expecting the other to carry the main burden, each of them maintaining its own separate strategy and, therefore, envisaging

the sea less as a pathway than as a barrier to protect them from the counter-blows of their enemies. While the Allies came together, not only physically, but in spirit, and started to plan a truly global unified strategy based upon their supreme asset, the "command" of the world-embracing ocean; first to keep their enemies apart, and then, on the basis of overwhelming industrial power, to concentrate, thanks to their control of that all-surrounding element, their main efforts first against one and then the other of their enemies.

So little, in fact, did German naval strategists understand that decisive issue, that long after they continued to expatiate upon the distraction of Allied strategy by their commitments all over the world, contrasting with it, to their satisfaction, the mutually interlocking diversionary effects of the two Axis strategies. Out of that pleasant dream not even the Allied landings in North Africa were capable of rousing them completely. The reactions indeed were deep and painful. We can gather something of the impact of that wholly unexpected blow from the dumbfounded helplessness of German propaganda, as well as in its repercussions upon German strategy at Stalingrad, and, in the naval sphere, from the replacement of Raeder by Doenitz. But although the impact was deep and painful, it is highly open to doubt whether their totally different approach enabled the Axis strategists to appreciate as clearly as their opposite numbers in Washington, London and Moscow, that the Allies had, in fact, thereby won the decisive round. Far from realising that their error had been due to a fundamental misunderstanding of the decisive military role of sea power in a global conflict, the German naval strategists were inclined to see it merely an unfortunate miscalculation of their "tonnage warfare," and hence, of seeking a remedy in the one-sided concentration upon and ruthless intensification of their submarine campaign. The signal collapse of that campaign in the following summer was, therefore, in all probability a harder psychological blow to them than even the landings in North Africa; the more so as it coincided more or less both with the catastrophic breakdown of their last abortive offensive on the eastern front, between Kursk and Orel, as well as with the fall of Mussolini and the Allied landings in South Italy. Thus, from the autumn of 1943 onwards, German strategy saw itself forced to concentrate all its hopes, no longer for victory, but only for a stalemate, upon a single, doubly hazardous issue; its ability to hold the Russians at bay in the East, while seeking to exploit the inescapable Allied landing in the West in order to inflict upon them a crippling defeat. With the success of the Allied landings in Normandy, German naval theory finally and irretrievably collapsed, leaving to German naval propaganda the lugubrious task of drawing up the balance sheet of five years of miscalculations, not so much for the purpose of at least seeking to

penetrate to the truth so long obstinately evaded, as in order to merge the legend originated in 1897 by Tirpitz finally and completely in the National-Socialist myth. Thus it is no accident, but only fitting that this last note in the conflicting harmony of German naval strategy and propaganda should have been struck, not by Assmann, but by perhaps the ablest of German naval propagandists, Heinz Bongartz, and not in the now defunct *Marine-Rundschau* or in *Nauticus*, but in Goebbels's *Reich*.

VI

THE STRATEGY OF JAPAN

The revelations of the Nürnberg trials, of the Pearl Harbor Committee and of individual Japanese leaders like Prince Konoye have shed a great deal of light upon the political considerations which led the Japanese military leaders in the autumn of 1941 to take over the leadership of their country and to unleash the Pacific War on December 7. But they have failed so far to link up that political decision with its strategic foundations; with the question, how did the Japanese militarists expect to wage, and to win, that war? By what means could a country so poor in every respect—in basic resources, in industrial potential, even in man power—hope to defy successfully the combined might of the two greatest naval and industrial powers of the world? That question is the heart of the Pacific War. It is the key to the entire Japanese strategy, the explanation of its many seeming inconsistencies. In order to understand it, it is, however, necessary to go back beyond the discussions of that tense autumn of 1941, to the past, to Japan's former wars against China and Russia. For it was the experiences of these wars, which, transposed into modern conditions and weapons, formed the basis for that fateful decision, and for Japan's conduct of the war.

The outstanding experience of the naval and military leaders of Japan ever since the time of the forcible "awakening" of their country by Admiral Perry had been the extreme weakness of their country in basic strength—resources and man power—and above all in modern technological potential. Compared with the gigantic size and resources of their neighbours, the Chinese and the Russian Empires, they were mere pygmies. If they had ever attempted to challenge these colossi upon an equal basis they would have gone down in disaster—as the world expected them to do both in 1895 and in 1904-05. Yet, on both occasions it was they who had emerged victorious from those unequal contests.

The secret of their success both in 1895 and in 1904-05 had lain in their ability to utilise superior sea power in order to restrict an "unlimited conflict," which they knew they could not have stood through, into a "limited war" adapted to their strictly circumscribed forces. Both in 1895 and in 1904-05 they promptly established complete ascendancy at sea over their opponents and then exploited that one-sided

“naval superiority” in order to overwhelm their limited territorial objectives, Korea and South Manchuria, challenging their opponents to come and oust them again from these conquests. In both instances these opponents saw themselves faced with the dismal prospect that they might perhaps, at the price of exorbitant exertions, succeed in pressing back again the Japanese on land, but owing to the temporary elimination of their naval forces could never hope to extend that dearly bought success to complete victory across the sea. Thus it is not surprising that first China and then Russia preferred a negotiated peace to the continuation of a game that at the best could only end in a draw.

So strictly circumscribed were, however, the Japanese forces that even these “limited wars” proved almost too much for them. In the conflict with China in 1895 Japan was pitted against an opponent whose immense potential military strength was entirely undeveloped, so that the actual naval and military forces on both sides were not too dissimilar. In 1904-05, however, the Japanese commanders found themselves outmatched from start to finish, and it was only through their cool acceptance of an uninterrupted series of “calculated risks” that they were eventually able to secure final success. Japan’s entire plan of campaign stood and fell with Admiral Togo’s ability to control the Russian naval forces opposing him and thus to enable the Japanese armies to land on the continent and drive the Russians out of Korea and South Manchuria. Yet Togo had to reckon with two Russian fleets, each approximately equal to his own whole force, the Far Eastern Fleet at Port Arthur and the Baltic Fleet in Europe. Worse still, because Japan’s own shipbuilding resources were not yet equal to the building of battleships and armoured cruisers, the 6 battleships and 8 cruisers which formed the backbone of his fleet and the cornerstone of the entire Japanese strategy were irreplaceable if lost.

By his surprise torpedo-boat attack on the Russian fleet in Port Arthur, which formed the infamous model for Pearl Harbor, Togo succeeded in temporarily disabling 3 out of the 7 battleships of that force. But while with his own fleet he kept watch over it—losing two of his battleships on mines—he knew that merely to keep that fleet under control was not enough. That he had to eliminate it for good, before the Baltic Fleet had time to come out to the Far East and take him between two forces. And what was more, he would have to destroy the fleet at Port Arthur without incurring thereby losses which would make it impossible for him to meet the Baltic Fleet, when it came in its turn. The strategy by which Togo succeeded in solving this appalling task of defeating in succession two fleets, each of equal strength to his own, was, therefore, determined by the strictest possible economy of his forces. While the Japanese battle fleet was kept rigidly in reserve, to be thrown

in only when absolutely unavoidable, the task of whittling down the Port Arthur Fleet was entrusted to other forces which could be more readily replaced: mines, blockships, torpedo-boats; above all, however, to the Japanese Army. General Nogi, the Japanese commander before Port Arthur, ruthlessly sacrificed thousands upon thousands of his best troops in the capture of the heights from which the Japanese were then able to survey the harbour and destroy the Russian Fleet at anchor by long-range artillery fire. Thus the Japanese battle fleet was able to maintain the indispensable "command" over the Far Eastern waters without ever emerging from its role as ultimate reserve; and when some months after the fall of Port Arthur the Baltic Fleet came out to the Far East, Togo was able to meet it with unimpaired forces, and in the battle of Tsushima to inflict upon it one of the most decisive defeats known to naval history.*

The same conditions which had determined Japan's strategy in 1895 and in 1904-05 still continued to determine it in 1941.

In the 36 years since her war with Russia, Japan had achieved a vast expansion of her military and economic strength. Yet, her fundamental weaknesses had not been eradicated thereby. Her main source of strength, her man power, was still absorbed to an inordinate extent by uneconomic methods of agricultural and industrial production. Her industrial capacity, although feverishly expanded during the past five years, had still hardly reached the level of a minor industrial power like Belgium. Moreover, the expansion of her industrial potential merely served to accentuate still further her dependence upon outside sources for most of her strategic raw materials: oil, iron ore, scrap, tin, chromite, rubber.

Meanwhile the "Chinese incident," so rashly begun four years earlier at the Marco Polo bridge near Peiping, had led Japanese policy into an impasse. By the summer of 1941 even the leaders of the Army had been forced to the conclusion that the war against the Chinese National Government in Chungking had bogged down. Either the war would have to be broken off and the Japanese armies withdrawn from China—a "loss of face" which the army leaders stubbornly refused to accept—or else Japan would have to expand the war, to include the British Empire in her enemies and seek to cut the lifeline of the Chungking Government by invading Burma. Such a move southwards would have simultaneously

*That the Japanese *themselves* had consciously planned their war against Russia as a "limited war" is confirmed by Sir Julian Corbett. After that conflict the Japanese furnished the British Admiralty under the Anglo-British alliance with inside information, which Corbett used as the basis of his study of the Russo-Japanese War. That study has not been made public; but the gist of it was incorporated by Corbett a few years later in Chapter VI of his *Some Principles of Maritime Strategy*, in which he analyses the Russo-Japanese War as a *classical example* of a "limited war."

solved Japan's economic "heel of Achilles" by the conquest of the economic resources of British Malaya, Sumatra, Java, and Borneo. But, as Foreign Minister Matsuoka had to admit to Adolf Hitler on April 4, 1941, the Japanese naval and military leaders were convinced that in such an attack upon the British and Dutch possessions in South East Asia would inevitably bring the U.S.A. into the struggle.

This exceedingly tense political-military situation was still further intensified when a few months later, in July 1941, the U.S.A., followed by Britain and the Netherlands, imposed upon Japan a financial and economic embargo. Together with the military impasse in China it placed the Japanese leaders in a position in which they would see themselves forced to decide within a measurable period of time between three alternatives: either to break off their war of aggression in China and Indo-China and come to an arrangement with the Anglo-Saxon democracies—the line which Prince Konoye apparently tried to pursue up to his fall in the middle of October; to persuade the U.S. Government, by the threat of "something terrible" which would otherwise happen in the "explosive situation" in the Pacific, to lift the embargo without any clear Japanese commitment to the termination of the "China incident"—the purpose of the Kurusu mission; or finally, to break simultaneously both the military impasse and the economic stranglehold by open force. This last, however, meant a war against the United States, an undertaking more formidable even than had been the challenge to China in 1895 and to Russia in 1904-05. So tremendous was the prospect that in contrast to the Army, which professed its confidence to overrun South East Asia in two to three months, the Navy leaders appear for a long time to have been reluctant to envisage such a struggle, although the expansion into the "South Seas" was the traditional naval line. However, Admiral Yamamoto, the energetic commander of the Japanese combined fleets, had instituted from January 1941 onwards an inquiry into the ways and means for reducing that seemingly impossible undertaking to manageable proportions. Out of these investigations emerged a plan, which, tested first in fleet manoeuvres in August 1941 and subsequently in a gigantic war game in Tokyo from September 2 to 13, was finally adopted by both the Navy and the Army chiefs.

Essentially this war plan was nothing but the reapplication of the strategy of a "limited war," so successful against China in 1895 and against Russia in 1904-05, to the new situation and to the new weapons which had emerged since that time. Just as in those earlier conflicts the Japanese strategists had wisely refrained from any attempt to aim at an all-out victory beyond their means, and restricted their efforts to the isolation, occupation, and defence of a limited strategic objective, so Yamamoto's plan renounced from the outset any hope of inflicting a

decisive defeat upon Japan's opponents and restricted itself sharply to one limited objective: the isolation and over-running of South East Asia. Thus Chinese resistance would be crippled by the cutting of the Burma Road and the "Chinese incident" brought to a successful conclusion. Japan's economic "heel of Achilles," her dependence upon the strategic raw materials of Borneo, Malaya, Sumatra, and Java, would be eliminated by the incorporation of those territories into her Empire; and once thus made proof against economic pressure she would, as on the two former occasions, be able to sit back with equanimity and defy her opponents to oust her again from her conquests. Provided that she did not let herself be drawn into unlimited adventures and husbanded her forces carefully, she would have a good prospect of frustrating their inevitable counterattacks and by wearing them out to compel her enemies once again to accept the *fait accompli*.

For this war plan the essential part was the conquest of Borneo, Java, Sumatra, Malaya, and Burma. The conquest of the Philippines was not to the same degree absolutely essential. Economically, they had little to add to the oil, iron ores, tin, and rubber of the "South Sea Territories." Strategically, they were, despite their flanking position, no indispensable stepping-stone for the Japanese drive against those territories. The Japanese strategists could have carried through that drive—as they actually did to a considerable extent—without touching the Philippines, merely observing and "masking them"—operating from their advanced concentration areas in the Palau Islands, on Hainan and in Indo-China. From the broader political point of view there would have been in fact every reason for going to the extreme to avoid anything that could contribute to bring the United States into the conflict. But Yamamoto and his collaborators did not see it in that light. To them the intervention of the United States was a foregone conclusion and the only "realistic" policy to nip that intervention in the bud by temporarily crippling her by a surprise attack against her naval forces and bases in the Pacific. For that reason the violent conflict between those Japanese Admirals who wanted to concentrate *all* forces upon the drive to the south and those who contended that it would need to be "secured" by an attack upon the Pacific Fleet at Pearl Harbor, was finally decided in favour of the latter by Admiral Nagano, the all-powerful Chief of the Japanese naval staff. So completely was Nagano dominated by this purely strategic approach to the issue, that even after the defeat of Japan he persisted in asserting that the order to attack Pearl Harbor had been "no mistake" and that without the success of that attack Japan would have been defeated far earlier.

In contrast to this violent dispute among the Japanese strategists, whether to include the attack upon the Pacific Fleet at Pearl Harbor in

their plans or not, the other issue, so hotly discussed in this country,* why they did not decide "to go the whole hog" and take the Hawaiian Islands themselves, did not preoccupy them to any marked extent. It was raised, and decided against, on subordinate technical grounds in the course of the war game on September 6 and 7. This decision, for which they have been held up to so much scorn and ridicule, reveals itself as entirely consistent, once it is envisaged from their fundamental conception of a "limited war." Their main attention was directed to the "South Seas." The inclusion of the attack upon the Pacific Fleet had already strained their plans and resources to the limit. To go still further would have meant to incur the acute risk of defeating their entire scheme for the sake of an additional advantage not strictly indispensable to their ends. For their purpose of keeping the United States from intervening during the first critical six months a crippling blow at the Pacific Fleet was enough; while as the stepping-stone to an attack upon the United States themselves the Hawaiian Islands were useless to them, because such an attack was far beyond anything they could hope to propose to themselves.†

This extreme "tenseness" of the Japanese plan of operations between the main drive to the "South Seas" on the one side and the "protective stroke" at the Pacific Fleet in Pearl Harbor on the other was still further intensified by the necessity of co-ordinating it with the Kurusu mission to Washington. The result was that Kurusu's mission was almost foredoomed to failure because of the extremely short time limit set to him to produce decisive results—Kurusu arrived in Washington on November 20, and was originally given the 25th as his dead-line, which with considerable difficulty was extended to the 29th. On the other hand, the complications entailed by it for the military action were such that it is hard to believe that it was meant from the outset merely as a camouflage.

The greatest difficulty of all, however, was in the co-ordination of the surprise attack against Pearl Harbor with the launching of the operation against Malaya at the other end of the 5,000 miles arc spanned by the Japanese plan of operations. To the eyes of the Japanese strategists, this second major blow, designed to eliminate the latent menace of Singapore, isolate the Netherland East Indies from the West and form a

*Great Britain. Ed.

†The outlook of Yamamoto and his collaborators towards the attack on Pearl Harbor is most illuminatingly characterised by a speech which Yamamoto made to the attacking crews upon their return. Pointing out to them this would give Japan freedom of action in the Western Pacific for some six months he emphasised that this was *not* an *all-out* victory. To achieve such a victory it would have been necessary to carry on the attack further to the occupation of the Hawaiian Islands, to a decisive attack upon the United States, and to the point where he, Yamamoto, would have been able to dictate peace in the White House. This speech was distorted into his famous "boast" that he *intended* to dictate peace in the White House.

flank against the Indian Ocean, was no whit less important than the blow at the Pacific Fleet. So impressed were they with the necessity for the utmost speed in carrying it through that they decided to launch it simultaneously with the attack against Pearl Harbor, without waiting for the outcome of that highly adventurous undertaking.*

Even more grave was the fact that in doing so they were forced to disclose prematurely at least part of their plans and thus to endanger the surprise effect upon which they were counting so heavily to offset their limited forces. For, unlike the attacks against Pearl Harbor, Midway, Wake, and Guam, the launching of a large armada of transports and warships from Hainan could not possibly escape observation in the comparatively narrow waters of the South China Sea. All they could do was to seek to deceive the Allies as to its destination by first directing it against Bangkok and making it change its course midway against Northern Malaya. While this oversubtle stratagem failed, the premature disclosure that something was afoot played, in its total effect, singularly into their hands by concentrating the attention of the Allied strategists still further upon South East Asia, and thus contributing to make the surprise at Pearl Harbor even more complete.

The task of this second Japanese major force had meanwhile been further complicated by the arrival in Singapore late on December 2—about the time that the Japanese set out from Hainan—of Admiral Sir Tom Phillips with the two battleships *Prince of Wales* and *Repulse*. Two older battleships, *Revenge* and *Royal Sovereign*, were following. To crush this powerful opponent the Japanese strategists had concentrated in their turn an overwhelming force; but before this could come into action, Admiral Phillips's ships had already been caught by their naval fliers on his heroic sortie to cut off the Japanese armada at Singora and Kota Bharu, and sunk off Kuantan on his way back.†

With the sinking of the *Prince of Wales* and of the *Repulse* the Japanese strategists had dominated the only remaining force of capital ships which after the immobilisation of the U.S. Pacific Fleet at Pearl

*The success of the Japanese attack upon Pearl Harbor has tended to obscure the fact that they themselves felt anything but sure of its outcome when they launched it. We know to-day that they reckoned with a loss of one-third of their task force even in case of a success, and had braced themselves against the possibility of a complete disaster.

†So difficult had been the task of withdrawing ships from the struggle in the Mediterranean and Atlantic that Admiral Phillips arrived in Singapore with only four destroyers. Under an agreement made by him on December 6 in Manila with Admiral Hart these were to be supplemented by four American and six Dutch destroyers. But his greatest weakness was the lack of any carrier-borne air protection. By that most unlucky series of adverse incidents which pursued the Royal Navy in the weeks preceding the outbreak of the Pacific War, the *Ark Royal*, which had first been detailed to accompany him, had been sunk by a German submarine on November 13 in the Mediterranean and the *Indomitable*, which was to have replaced her, ran aground in the harbor of Kingston, Jamaica, and had to be sent to Great Britain for repairs. A third carrier was not available, however great the need.

Harbor could still have seriously interfered with their operations, and had established their absolute naval superiority in the entire area between India in the west and Australia in the east. Yet, even this absolute superiority could not induce them to relax for a moment the extreme circumspection with which, despite the apparent recklessness of their moves, they were carrying through their plans. Just as Togo forty years earlier had been harassed by the dilemma of having to eliminate the Russian fleet at Port Arthur, and yet of having to preserve, at the same time, at all costs, his irreplaceable handful of capital ships in order to be able to meet thereafter the Baltic Fleet; so his successors in the Second World War were strictly circumscribed by the same imperative necessity of preserving their main fleet as the backbone of their "command" of the western Pacific, and the central reserve upon which their ability to ward off the Allied counterattacks in the second defensive phase of their war plan would depend. In the words of the Japanese naval attaché in Berlin, Rear Admiral Yokoi, all actions against the enemy's forces would be subject to the fundamental condition that the main force would have to be preserved without serious "losses." Thus, even after the temporary elimination of the Allied capital ships, the Japanese strategists were not willing to expose their own to any avoidable risks from Allied submarines and planes, but kept them well to the rear, preferring to carry through the overwhelming of the weak Allied forces still opposing them with similar, more easily replaceable forces: light naval units, transports, land and air forces.

Neutralising and isolating one Allied position after the other from the air before launching forth their vulnerable transports under the protection of strong escort forces, they were able to drive forward systematically, and yet with extreme rapidity, from one key point to another without ever offering to the Allied commanders an opening for a really crippling counterstroke. In this manner first Singapore and thereafter Java were caught between successive pincer movements and the Allied naval forces under Admiral Doorman were driven by incessant bombing attacks to the south of the Dutch East Indies. When Doorman's attempt to come back to the north of Java and break through the Japanese escort screen into their eastern transport fleet failed in the Battle of Java, the last remaining obstacle to complete Japanese "command" of this entire area was removed and the struggle for the South Sea territories was won. A few days later Japanese forces landed in strength in three places on Java and within little more than a week brought about the surrender of that centre of resistance, soon followed by those of the other islands.

The conquest of Malaya and the Dutch East Indies released considerable Japanese forces for the reduction of the Philippines, where the Japanese had encountered unexpectedly stiff resistance. The surrender of

Bataan (April 8) and Corregidor (May 6) marked the final "reduction into possession" of the entire "strategic objective" isolated by the twin blows of Pearl Harbor and Kuantan, almost exactly six months after those two successes. It was a breath-taking achievement and yet it had taken more than twice as long as the two to three months which the Japanese strategists had set themselves out for this task in the deliberations of the previous September. The desperate delaying action of the outnumbered Allied defenders had not been fought in vain.

Even before this conclusion of the struggle for the Philippines the breakdown of Allied resistance in the south had placed before the Japanese strategists a vital decision, the most vital that was to confront them in the entire course of the war: the decision whether to push on into the Indian Ocean or not.

The resistance of the Allies in Malaya and the Dutch East Indies had given the British authorities in India a few invaluable weeks to strengthen their defences. But even so they were still woefully weak. By the desperate expedient of withdrawing all British capital ships from the Mediterranean—leaving the holding of that vital line to a handful of cruisers, destroyers, and submarines, backed by the R.A.F. and the Eighth Army—the Allied strategists had succeeded in re-establishing a substantial force in the Indian Ocean under the command of Admiral Somerville. But of that fleet only one battleship, the *Warspite*, was fully efficient; the four others, the *Revenge*, *Royal Sovereign*, *Resolution*, and *Ramillies* were inadequately modernised and liable to break down under strain. The two aircraft carriers *Illustrious* and *Indomitable* carried obsolescent planes, except for a handful of fighters. The destroyers were a very mixed lot, some so old that it was a marvel they could still go on. When the Japanese strategists a month after the fall of Java struck a blow in force at Colombo, Ceylon, at the beginning of April, they caught Admiral Somerville's fleet in the act of concentration, sank the old carrier *Hermes* and the two large cruisers *Cornwall* and *Dorsetshire* and forced Somerville to surrender temporarily control of the Western and Central Indian Ocean, and to withdraw his force to Kilindini on the East African coast. There, however, the Japanese failed to follow him, but withdrew instead to their bases in Singapore and Penang, never again to enter the Indian Ocean in force. Their subsequent activities in that direction were confined to sporadic attempts to disturb the Allied lines of communication by submarines and occasional surface raids too intermittent to become really dangerous.

Yet, during those anxious summer months of 1942 they held here in the Indian Ocean the fate of the war in their hands. The entire global strategy of the Allies stood and fell with their ability to maintain the vast barrier of Russia, the Near East, India and China between the two Axis

groups, until such time as the tremendous resources of the United States could be mobilised and the counter-offensive first against the one and then the other Axis group started. The lifelines from the two Anglo-Saxon sea powers to this central block ran almost entirely through the Western Indian Ocean. Without the uninterrupted flow of supplies in men and material over them—from March onwards, when the build-up for El Alamein began, through the summer and autumn 1942—neither the Russians could have held out and turned the tables on Paulus at Stalingrad, nor the British on Rommel at El Alamein. To all this the Japanese strategists were certainly not blind. But for them to concentrate all their naval forces in the Indian Ocean in a supreme effort to cut the Allied lifelines through the western basin would have needed more than merely insight. It would have needed the resolution to break completely with all the foundations of their strategic planning; to abandon their idea of a circumspect “limited war” in favour of a reckless all-out effort; to surrender their jealously guarded “strategic independence” in favour of a genuine and whole-hearted co-operation with their European Axis partners in a common War Plan; finally, to break off their victorious advance in the Pacific, before they had been able to round off and fortify their conquests, in order to win in the Indian Ocean a victory mainly for their nominal allies, whom they distrusted and feared. What the Japanese strategists did *not* realise was that they had no choice; that their cautious “independent” and “limited” strategy was radically unsound in a worldwide conflict, and that the only, slender, chance of salvation would have lain precisely on such a seemingly reckless “unlimited” global strategy.

The fatal effects of their plan of a “limited war” restricted to the occupation and defence of South East Asia went even further. Not only did it prevent them from acting effectively in the only direction that might have held out the hope of a decisive success; it prevented them from acting with full concentrated energy in *any* direction. While they squandered a considerable part of their forces in their fruitless raid against Ceylon and into the Bay of Bengal, without the determination of following it up, they missed at the same time other opportunities in the opposite direction through lack of the necessary strength.

From the outset the Japanese strategists had fully recognised the vital necessity of preventing the Allies from developing Australia into the main basis for their counter-offensive. Just as in the case of India, they realised that Australia as a whole was too large a bite for them to swallow. But they hoped that by occupying its northern territories and cutting its lines of communications from the east as far as New Caledonia, New Zealand and Samoa, to be able to isolate and neutralise it. Thrusting vigorously in that direction simultaneously with their drives

against Malaya and Java they had reached by the time of the collapse of the Allied resistance after the battle of the Java Sea, the beginning of March, Lae and Salamaua in New Guinea, and Bougainville in the Solomons. Australia's defensive power at that moment was almost non-existent. Of four field divisions three were in the Near East, the fourth lost at Singapore. Equipment of every kind was pitifully short. Air support consisted of a handful of obsolete planes. If the Japanese commanders at this moment had been willing to depart from their methodical strategy of moving forward step by step, they might have by-passed New Guinea under cover of their carrier air forces and captured the strategical centre of the Australian defence, Port Moresby, garrisoned only by a single brigade of raw militia. But true to their determination not to take any step forward without adequate aerial preparation and support they hesitated and lost the fleeting opportunity. When in the beginning of May they resumed their push through the Solomon Islands and the Coral Sea toward New Caledonia and New Zealand they were stopped by the twin blows of the counter-attack on Tulagi (May 4) and the battle of the Coral Sea, in which they lost their first capital vessel, the carrier *Hosho*.

At this point the reactions of the Japanese strategists are most difficult to understand, and the cramping influence of their idea of a "limited war" is most strikingly evident. For their drive to the south-east, to the isolation and neutralisation of Australia, was not like their advance into the Indian Ocean, a move tending to lead them away from their fundamental objective and therefore readily abandoned at the first evidence of resistance. It was an integral, in fact the most important remaining part of their original programme, and its temporary arrest was felt by them as a most painful blow. Yet, instead of responding to it by the concentration of their forces here at the decisive point and the resumption of their drive in overwhelming strength, we find them in the month after the defeat in the Coral Sea giving up this line for the time being altogether, and dispersing instead their attention and their forces in four directions, as widely divergent as possible: attacks by special submarine groups against the British forces at Madagascar and in the harbour of Sydney, as well as by large expeditionary forces against the Aleutians and against Midway. While the three former operations achieved little of significance except the occupation of Attu and Kiska in the western Aleutians, the strongest, the expedition against Midway ran into the trap there prepared for it by the American strategists and lost at one blow the backbone of the Japanese carrier force.

The defeat at Midway dealt the Japanese power of offence a most severe blow, but it did not yet break it altogether. In warships, even in carriers, in transports and men, the Japanese still held the superiority

over the Allies, and the weakness of their carrier force could be offset by strong concentrations of land-based planes.

Thus within little more than a month after that disaster the Japanese resumed the attack in the crucial New Guinea-Solomons area, broken off after their defeat in the Coral Sea. Of the two-pronged drive, the land attack from the Buna-Gona area, occupied on July 21-22, pushed in the middle of August up the mountain trail across the almost impenetrable Owen Stanley Range, captured the only airstrip at Kokoda, and straggled through to within 30 miles of Port Moresby. But the 3,000 Japanese soldiers, exhausted, diseased, starving, mercilessly strafed day after day, who reached Boribaiwa, were in no position to carry on their attack and had to fall back again in dissolution, when the simultaneous landing on Milne Bay, in the extreme south-eastern tip of New Guinea, had been bloodily repulsed by American and Australian forces.

The second drive from the Solomons south-eastwards never got even as far as that. The landing of the U.S. Marines on Guadalcanal on August 7, 1942, a week before the Japanese had counted on completing the airfield there and moving in their land and naval forces under its protection, took the Japanese completely by surprise. Even after that initial setback they still had a fair chance to turn the tables upon their opponents. They had the stronger resources on the spot, the incomparably shorter lines of communication, and during the first two months they succeeded in inflicting greater losses on the Allies than they themselves suffered. By the middle of October this superiority had become so pronounced that they were able to bring in strong reinforcements into Guadalcanal in full daylight and even to land navy guns. But, once again, their constant preoccupation with their need to wage this war "economically" proved fatal. Instead of utilising their initial superiority in order to crush the American foothold on Guadalcanal with concentrated force, they preferred to throw in their forces piecemeal. By the time they had made up their mind to an all-out effort, the opportunity was already past. American command and strategy had changed from a cautious defensive to an aggressive offensive and the balance of power had begun to change in their favour. Thus the strong Japanese drives of the end of October and the middle of November ended in complete disaster, the loss of two battleships, a number of lesser vessels and transports, and some 30,000 men. That was more than they could afford and their heart went out of the struggle, although the final admission of the loss of Guadalcanal was not made until February 9, 1943.

With the simultaneous defeat of its two drives against the Australian lifeline Japanese strategy came thus in the second half of November 1942 to its inner turning point. The first phase of the Japanese War Plan,

the phase of the isolation and occupation of the "objective," South East Asia had been achieved. The attempts to eliminate or neutralise beyond that the bases from which the Allies could launch their counter-attacks, had on the other hand, not been uniformly successful. Singapore, Java, the Philippines, Guam, Wake, and the western Aleutians had indeed been captured. But Chinese resistance had not collapsed despite the cutting of the Burma Road. Australia had not been neutralised. Still, despite these setbacks, the Japanese strategists had good reasons for their hope of bringing off the second, even more difficult, part of their plan—the wearing out of the Allies until they would finally "throw up the sponge" and accept the *fait accompli*. In every direction, except against the Soviet Union, they had surrounded their central area with a broad buffer zone in which to exhaust and seal off the Allied counter-attacks. The mere distances alone, which the Allies would have to overcome in their advances across the Pacific and Indian Oceans, would serve as powerful brakes on their efforts. The jungles of Burma, New Guinea, and the Solomons, which the Japanese had barely been able to penetrate, would prove even more formidable to white troops not accustomed to live and fight in them. The dogged fanaticism of the Japanese soldiers would, as on Guadalcanal, hold up the Allied advances to the utmost and exact a prohibitive toll for any foot yielded. Finally, the highly developed net of sea and air bases would enable the Japanese strategists to meet any Allied drive with a superior counter-concentration, and form an unbreakable ring around the central area. "No fleet of battleships supported by carrier-based aircraft can successfully attack vital points within the range of Japan's land-based aircraft," assured Radio Tokyo a fortnight after the fall of Guadalcanal, while the Army spokesman, Colonel Yahugi, affirmed that "the innumerable islands scattered throughout the vast Pacific Ocean have become land bases (i.e. bases for land planes), and as a result . . . we hold absolute supremacy within the strategic sphere of these bases." And finally, behind the closely interlocking defensive ring, the central reserve of the battle fleet would stand ready to deal a crushing blow to any Allied force that might succeed in piercing through the outer ring of defences.

Thus from the second half of November 1942 onwards the Japanese strategists regrouped their forces in opposite directions. With the end of the offensive phase the heavy ships, battleships, carriers, and heavy cruisers, were withdrawn from the danger zones to safe areas in the rear. During the next eighteen months not a single one of them was lost by enemy action—although the battleship *Mutsu* was sunk in Hiroshima Bay by an internal explosion on June 8, 1943. Conversely, the land and air forces, designed to absorb the initial shock of the Allied attacks, were pushed forward into the critical areas. In New Guinea the slow and

costly progress of the Allied counter-drive against the remnants of the Japanese force that had menaced Port Moresby from the Gona-Buna area, seemed to hold out to the Japanese strategist such unexpected opportunities for a large-scale campaign of action, that they promptly set to work to develop systematically the hitherto comparatively weak position along the northern coast and to pour in troops. Not even the complete annihilation of an entire convoy with some 30,000 men by Allied planes in the battle of the Bismarck Sea—March 3, 1943—was able to stop them. It was not until the autumn and winter of that year that their system of bases around the Huon Gulf at Lae, Salamaua, and Finschhafen finally collapsed under the blows of General MacArthur's brilliant series of airborne and amphibious operations. In the same manner the simultaneous embittered struggle for the Central and Northern Solomons contributed to lull the Japanese strategists in the comfortable feeling that despite their losses their plan to wear down the Allies was working by no means too badly.

That pleasant illusion was abruptly shattered by the great American offensive in the Central Pacific in the winter of 1943. The unprecedented effort of American shipbuilding had in the summer and autumn of that year begun to bear fruit to such an extent that within little more than half a year the balance of the opposing forces, which during the Guadalcanal campaign had been more or less equal, had been completely and irretrievably upset. Admiral Spruance's new Fifth Fleet was more than a match for anything the Japanese could throw against him, while its unprecedented concentration of aircraft carriers gave him an irresistible weapon with which to smash his way through the chain of defensive positions which the Japanese strategists had deemed unbreakable. With masses of 800 and soon more than 1,000 carrier planes at his disposal, Admiral Spruance was in the position to overwhelm Japanese land-based air forces at any point of their defensive system at which he chose to strike; to isolate key positions; to overcome them under the cover of complete air superiority and of naval bombardments of unheard-of intensity; finally from the new bases thus acquired to isolate and neutralise the remainder of the Japanese positions, by-passed in his advance, and let them rot. Moreover, thanks to the revolutionary system of mobile supply bases simultaneously organised during his first strikes, he was able to overcome as well the logistic difficulties, which up till then had appeared insuperable and upon which the Japanese strategists had counted so heavily, and to carry his advance almost without pause as far as he wished.

So revolutionary was this wholly novel form of superior sea power that the Japanese strategists were unable to grasp immediately its significance and implications. So little did they realise at first what had

happened, that they failed to perceive even that the capture of the Gilberts had inaugurated an entirely new line of attack; they were inclined to consider it merely as a flanking operation for the simultaneous continuation of the Allied drives through the Solomons and through New Guinea. The much publicised losses of the Marines at Tarawa contributed to maintain them in the delusion that everything was still going "according to plan," and that their outposts were successfully carrying out their mission to wear down the "impetus" of the Allied counter-offensive. Even the incomparably less costly capture of Kwajalein in the Marshalls was not yet enough to arouse them to the realities of the situation. It was only when after that capture Admiral Spruance struck with telling force at their great naval base at Truk, so long the centre of their operations towards the south-east, that they awoke with a start to the fact that their entire war plan had been irretrievably shattered in the course of exactly three months, from mid-November 1943 to mid-February 1944.

For the fall of the Japanese key positions in the Gilbert and Marshall Islands meant more than merely the breakdown of their outer zone of defence. It meant nothing more nor less than the collapse of their entire strategic system. That system, as we have seen above, rested both in its offensive and defensive phase upon a division of functions between two complementary elements: on the one hand the advanced land, sea, and air forces and on the other the central reserve of the main fleet. In this division of functions the role of the "expendable" advanced forces had been not only to defeat and, correspondingly, to hold their opponents, as through 1943; but, if they could not prevent the Allied counter-attacks from breaking through, to act at least as "shock absorbers"; that is, to weaken them to such an extent as to give the Japanese main fleet a favourable opening for a devastating counter-stroke. Thus when the advanced forces failed not only to hold Admiral Spruance, but even to weaken him appreciably, they broke down not only in themselves, but in their fall fatally compromised the power of intervention of the central reserve as well. For without their action as shock absorbers the Japanese main fleet was no longer strong enough to oppose Spruance with any prospect of success.

Thus, through the breakdown of the indispensable shock-absorbing action of their advanced forces, the Japanese strategists had virtually, if not yet *de facto*, lost the command of the western Pacific which they had gained at Pearl Harbor and Kuantan. Deprived of that indispensable complement, the powerful fleet which they had preserved so assiduously against such an emergency, was no longer in the position to meet that emergency. Without having had the opportunity to strike a single blow it had been reduced overnight to a mere "fleet in being," still able to exert

some restricting influence, but beset with all the perplexities of such a fleet. Whichever way the Japanese strategists turned they were facing disaster. If they decided to risk their main fleet in trying to stop Admiral Spruance, the probability was that they would be defeated and throw away at one blow whatever restrictive influence they were still able to exercise on his actions. If, on the contrary, they continued to keep their fleet "in being" they would be unable to prevent him from rolling up their positions one after another and would in the end find themselves forced to oppose him under even more unfavourable conditions.

Faced with this dilemma the Japanese strategists were unable to make up their minds either way and tried to wriggle through between its two horns. Twice in succession, at the American approach to the Marianas and again to Leyte, they did throw in their main fleet in a desperate attempt to stop them; but each time with so divided a mind, so unwilling even at this stage to commit it wholeheartedly, that they threw away their best forces to no purpose, while saving the remainder merely for the ignominious fate which overtook them in the great carrier strikes of March and July of the following year.

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A most significant illustration of that vacillation between the two conflicting aims of preserving and using their main fleet is to be found in an interview given by the Japanese naval spokesman, Ito Masanori, on July 26, 1944, midway between the battles of the Philippines and of Leyte Gulf, to the effect that any plan for a naval battle must always counsel the necessity of preserving one's forces for a subsequent encounter, and that the main force should under no circumstances sacrifice itself, however heroic that might be.

The failure of the Japanese main fleet to stop the American offensive in the central Pacific marked the end of the second defensive phase of their original strategy, just as their withdrawal from Guadalcanal had meant the end of its first offensive phase. In so far as the battles of the Philippine Sea and of Leyte Gulf sealed their inability to prevent their opponents from rolling up their sea empire, it was the real decision of the Pacific war. In 1904 a similar defeat of Togo's fleet would have meant the immediate collapse of the entire Japanese strategic position. But in 1944 the new instrument of air power in conjunction with the incomparably larger distances and areas seemed to hold out to the Japanese strategists a slim chance to drag out the conflict and escape complete disaster.

As the American offensive advanced from the scattered Japanese positions at the periphery towards the broad land masses of Japan's basic area, the Philippines, Formosa, and the Japanese isles proper, it ran into areas which could no longer be as easily isolated and in which the

Japanese were able to concentrate and manoeuvre large masses of land and air forces. If they could utilise these advantages to slow down the American offensive they might still be able to make it so costly as to secure something better than unconditional surrender.

Thus, although with the battle of the Philippine Sea Japan had lost not only her original war plan, but the War, the conflict went on for another year. Strategy in the sense of a clear reasoned plan finally came to an end when the hope of arresting the American offensive by concentrated masses of land forces and planes broke down in its turn in the long, hard, and brilliant campaign for the Philippines. But dogged fanaticism and sheer despair still kept the Japanese strategists struggling on, although the end could no longer be in doubt, until the atomic bomb induced the Emperor to bring the senseless struggle to its conclusion.

What strikes one most, in retrospect, about the Japanese strategy is its contrast to Adolf Hitler's. Both ends of the Axis erred fatally in their calculations. But they erred in a totally different spirit and, so to speak, "in opposite directions." Adolf Hitler deliberately provoked the war against Poland out of an exuberant feeling of superiority in order to exploit it while it lasted. He realised that he could no longer hope to achieve further successes by the mere show of force alone; but he was confident that he would be able to control the conflict which he so rashly unleashed and to carry through his war of aggression in a series of isolated "episodes." When that calculation broke down after the Polish campaign and he found himself irrevocably committed to an "unlimited" life-and-death struggle, which he had desired to avoid at all costs, he saved himself only by the continuous success of his daring strategic improvisations in Norway and in the west. This series of victories achieved against the considered opinion of the General Staff temporarily extricated him from the immediate consequences of his error, but ultimately proved his undoing by confirming him in his strategic megalomania and incoherent dreams, while none of his military advisers were any longer in the position to contradict or restrain him effectively.

At first sight the outlook of the Japanese strategists might appear not too dissimilar. They, too, deliberately unleashed their struggle against Great Britain and the United States. They, too, did so in order to exploit a temporary superior preparedness. But the spirit and motives behind these superficial similar actions were totally different. The Japanese strategists, as we have seen, were driven to them not by a frivolous optimism, not by the desire to grasp an easy triumph, but by fear and apprehension, as the only way out of the steadily more difficult position into which they had been manoeuvring themselves ever since the "Chinese incident." So little confident did they feel of success, that their elaborate planning served first and foremost the purpose of convincing themselves that they had a

fighting chance to win through, provided they planned carefully and did not let themselves be drawn into any adventure beyond their means.

Compared with Hitler's complete lack of a general plan, reckless improvisations, irresponsible fits and moods and mulish refusal to acknowledge reverses, their careful preparation, adherence to their general idea of a "limited war" and planning not only for an initial *blitzkrieg* but for a prolonged test of strength to follow it, impress one as incomparably more sober. And yet, these plans which they themselves felt to be so clear and moderate, so much in accordance with all the lessons of their past experience, were in reality based upon a complete and profound misunderstanding of the entire situation, political no less than strategic. The successes of their predecessors in their wars against China and Russia had been due to their skilful exploitation of the one-sided superiority enjoyed by a power "commanding the sea" over an opponent temporarily excluded from that element. Both China and Russia had been primarily land powers, and once defeated had been totally unable to make good their naval losses and to break the iron ring which the Japanese strategists had drawn around their objectives. In the autumn of 1941, however, the Japanese strategists decided to pit themselves not against two land powers, but against the two strongest sea and industrial powers of the earth whom, despite all temporary successes, they could never hope to exclude altogether from the sea and to prevent from coming back, sooner or later, with crushing superiority. In other words they were setting out no longer to impose by sea power a "limited war" upon land power, but to impose it upon intrinsically superior sea power. Their one hope to redress that adverse balance lay in the shock-absorbing action of the tremendous distances, which the Allies would have to overcome in order to strike back at them, coupled with their ring of advanced air bases. When that broke down in the winter 1943-44 under the blows of the new concentrated sea power, their entire strategic plan collapsed like a house of cards.

Their error, however, went even deeper. Their former conflicts with China and Russia could be limited strategically, because they were limited politically; because to both China and Russia the issues at stake were but of peripheral interest; of interest, moreover, only to the ruling groups, not to the peoples as a whole. Thus these ruling groups were unable to put into the struggle anything like the total force of their empires and when the decision went against them, were ready to accept even a disadvantageous settlement rather than to prolong a struggle which was beginning to fan the smouldering fire of internal discontent into open rebellion. On the other hand, even if a great part of Britain's and America's forces and their attention was for the time being absorbed by the struggle against Hitler, the Japanese strategists could never hope

to exclude them altogether from the sea and prevent them from coming back, sooner or later, with crushing superiority. All these political and psychological aspects the Japanese strategists of the Second World War ignored. Developing their plans upon a purely strategic level, they misjudged fatally not only the temper of their opponents as well as the tremendous psychological repercussions of the attack upon Pearl Harbor, but above all the imperative necessity for the closest correlation between their political and their strategic conception of the conflict; with the result that they gave the war, which they were endeavouring to carry through strategically as a "limited war," politically the character of an "absolute" life-and-death racial struggle.

Clausewitz, the great German military thinker, said in his last statement that the first, the greatest, and the most decisive act of judgment which a statesman or a commander is called upon to perform is that of correctly appreciating the nature of the war which he is about to unleash, so that he may not take it for something or try to make it into something which in view of the circumstances it cannot be. That is the first, the most comprehensive task of strategy. We have seen how completely Adolf Hitler ignored that advice. The Japanese leaders on their part sincerely flattered themselves that they had followed it. But beneath the deceptive logic of their reasoning they had fallen exactly into that pit of which Clausewitz had warned. They had embarked upon a struggle for which they had not the strength, and had concealed this to themselves by trying to make it into something which by the nature of the circumstances it could be neither politically nor strategically—a "limited war."

VII

THE ROLE OF SEA POWER IN GLOBAL WARFARE OF THE FUTURE

Nowhere, perhaps, has the confusion of thought brought about by the atomic bomb been more conspicuous or more widespread than in respect to the future role of sea power. One group of writers leans over backwards in treating the atomic bomb as just another new weapon, asserting that it has failed to affect the traditional task of the navies, to keep the humble merchantman moving over the sea and protect it from damage and interception, without troubling to examine what functions precisely that humble merchantman may have to or be able to fulfill in future global strategy. At the opposite extreme, others make no bones of their belief that in a conflict to be decided within weeks if not within days by long-range exchange of atomic missiles, there is no longer any place for the slow influence of sea power, and that the best which can be claimed even for naval power pure and simple is that it may provide some slight additional deterrent to an aggressor.

The completeness with which these two opposed views cancel each other makes any attempt to reconcile them out of the question. Their opposition arises less from any disagreement on the basic premises than from the arbitrary and one-sided pursuit of two radically divergent lines of reasoning, leading to the construction of two fragmentary pictures between which there is no common ground. To decide in favour of one or the other interpretation would obviously be as futile as to try to strike some arbitrary balance. The only hope of finding a way out of the impasse lies in making an effort to transcend both of these conflicting, limited perspectives and pursue the issue back to that ultimate frame of reference which alone can permit a full grasp of the situation—the over-all balance of land and sea power.

SEA AND LAND POWER IN BALANCE, 1492-1815

This over-all balance of land and sea power is not something that arises overnight. It is the final result of the gigantic process through which, during the four and a half centuries since the discovery of the New World and of the sea-way to India, the world has been transformed

from a cluster of isolated civilisations into a single strategic whole. It is only by briefly surveying the main phases of this process that we can hope to appreciate properly the role which sea power is likely to play in the future.

In the first phase, covering roughly the three centuries from the age of discoveries to the end of the struggle unleashed by the French Revolution and Napoleon, the balance of land and sea power revolved around three major interdependent developments. In Europe, on the one hand, the national states—Portugal, Spain, France, the Netherlands, England, Austria, Prussia, Sweden, Russia—were beginning to emerge from the feudalistic debris of medieval Europe. In them the dominant force, generally the prince, was endeavouring to establish his individual sovereignty with the assistance of a centralised administration, a permanent bureaucracy, a regular income from taxation and customs, and, above all, standing military forces both on land and at sea. At the same time the new national rulers were involved in a keen and bitter rivalry amongst themselves, resulting in the gradual extension throughout Europe of a new political system, no longer based, like that of medieval Christendom, primarily upon a moral community of thought, but resting upon the purely mechanical balance of physical power!

Parallel to and closely interrelated with this intra-European struggle between the newly emerging national powers ran the other struggle among the same protagonists for the control and exploitation of the vast new territories discovered beyond the seas. For a time, indeed, the effort was made to keep the two struggles apart and to maintain the fiction that what was happening “beyond the line” was of no concern to the relations of the powers in Europe. But this fiction inevitably had to break down, for, far from being irrelevant, the struggle for the colonies overseas actually became the decisive factor in the European struggle. Despite all their effort to set themselves upon their feet, the European powers of that time were still economically in their infancy. Their resources were as yet very inadequately developed—partly because of primitive technical standards and traditional fetters and impediments, partly because of limited manpower, but above all because of the dearth of capital. Bullion was still so inadequate compared with the demand that their economic policies were chiefly directed toward securing the maximum share of it to themselves without any thought beyond, while the development of credit was just beginning. Thus all states found themselves hard pressed to raise the necessary cash from their own internal resources. For such heavy expenditure as the maintenance of armies and navies, particularly in time of war, they had to rely to a large extent upon outside sources, such as colonial tribute, foreign trade, or downright subsidies. The ultimate source of these, however, lay either in

the oversea colonies, with their enormous natural resources, or in access to the great markets of the Middle and Far East.

This dependence of the European strength of the powers upon the flow of riches from overseas was recognised by the statesmen of the seventeenth and eighteenth centuries as the very basis of their political system. "I do not know," wrote Choiseul, the greatest exponent of sea power and colonial expansion in eighteenth-century France,

whether they really understand in Spain that in the present state of Europe it is the colonies, trade, and in consequence sea power, which must determine the balance of power upon the continent. The House of Austria, Russia, the King of Prussia are only powers of the second rank, as are all those which cannot go to war unless they are subsidised by the trading powers.

So profoundly impressed, in fact, were the statesmen and political writers of France and Spain with the influence of the balance of economic strength overseas upon the balance of military power in Europe that they were inclined simply to identify the two. "The balance of commerce of the nations in America is as the balance of their power in Europe," wrote Moreau. "One might even say that these two balances constitute only one. Commerce is the strength of the states and a nation which is engaged in it alone is always certain of having the balance of power lean toward itself." And similarly Buchet Dupavillon in 1762: "The possession of America is to-day the most abundant and the most dependable source of political power. It is only by reason of the riches which commerce bears thence that the nations may be compared with each other."

In thus naively identifying overseas economic strength with military power in Europe these French and Spanish statemen and political writers completely overlooked the real crux of the matter, namely the fact that economic strength derived from colonial revenue and trade could become effective in Europe only in so far as it could be safely transferred there; and that in this transit it was—in time of war—helpless before the menace of superior sea power. Not that they failed to recognise the importance of sea power. Their writings are full of it. But they failed completely to understand its essentially monopolistic nature: the fact that, unlike the situation in war on land, at sea the stronger power by securing "command" can achieve for itself absolute control of that element and eliminate its opponents from it altogether. Instead, misled by their familiar notion of the "balance of power," they sought to transfer it from the land to the sea, to acquire "proportionate" and not "superior" navies, and restricted their operations to the direct protection (and attack) of trade and territories instead of directing them upon the acquisition of the "command."

The result was that all the exertions of continental statecraft were condemned to failure and sea power, which at first had tended to shift freely between the various contending naval powers of the western seaboard of Europe, began more and more to gravitate into the hands of the one nation—Britain—which, with ever-increasing sureness, directed its naval strategy consistently upon the “command,” until it finally became permanently consolidated there.

Thus the sea power of Great Britain became a third and culminating factor in the over-all balance of power of the period, interposing itself between the rival powers of continental Europe and their overseas sources of economic strength. Its basis was the immunity of the British Isles from invasion. Control over the vital flow of economic strength from its overseas sources to Europe enabled Britain to deny it to her opponents and at the same time redirect it into her own coffers. Instead of financial burdens her wars became steps in her economic expansion, amply paying their cost by the increase in national wealth which they brought about and enabling her to maintain her allies on the continent with her subsidies. Compared with the cardinal importance of this financial stranglehold the other forms of economic pressure—e.g. through the interception of grain or naval stores, etc.—as yet played only a secondary role, limited to individual instances.

At the same time Great Britain was able, from the safe basis of her “command,” to use her naval and military forces with complete freedom in order to bring them to bear with maximum effect upon the course of the continental struggles. Owing to the primitive state of the general economy and hence of military organisation, these continental wars presented opportunities for intervention which were hardly less favourable than the ability to cut the umbilical cord across the ocean. Limited in scope, the continental wars tended to concentrate around certain key areas, three of which—the Low Countries, Catalonia, and the Riviera—were readily accessible to the intervention of naval forces. Through naval bombardments, the cutting of the enemy’s coastal supply lines, the convoying of friendly military expeditions, last but not least through the mere moral influence of their presence, her limited forces could exercise an influence out of all proportion to their intrinsic strength. On a still higher plane her relative freedom from territorial entanglements together with her financial strength enabled Britain to exploit the rivalries between the continental powers and to mobilise their continental rivals against her opponents of the moment.

Thus sea power in this its classic age was a highly complex factor, defensive as well as offensive; economic or, more specifically, financial as much as military; achieving its greatest effects not so much by its own intrinsic strength as by its skillful exploitation of the weaknesses of its

opponents. By its aid first the Portuguese, then the Dutch, and finally the British were able to wield an influence out of all proportion to their size, resources, and man-power. Thanks to its unique key position Great Britain was able not merely to control the flow of overseas treasure but to manipulate on the continent of Europe the balance of half a dozen powers, each intrinsically superior to her in every other respect.

THE BALANCE DISTURBED, 1815-1900

The wars of the French Revolution and Napoleon mark the culmination of the classic age of sea power and the beginning of its transformation in the nineteenth century. While classical sea power achieved its apogee under Barham and Nelson, the tripartite "pattern of power" upon which it had rested was already beginning to crumble away. On the one hand the colonies in the Americas, which had played so decisive a role right up to the end of the period, broke away from their European mother-countries in the decades following the American Declaration of Independence. On the other, the colonial powers of western Europe freed themselves to a considerable degree from their economic dependence upon their American colonies and tended increasingly to turn eastward toward a closer integration with eastern Europe.

Napoleon himself broke signally with the policies of Choiseul and Vergennes when he decided to liquidate his ambitious dreams in the western world and to sell Louisiana to the United States. He could turn his back upon its resources because the revolution in land warfare which he had brought to its culmination enabled him to find substitutes for these resources on the Continent itself. By increasing the range and speed of his campaigns beyond anything his eighteenth-century predecessors had been able to aim at, he was able gradually to lay the whole of Europe under tribute and to make war pay for itself. At the same time his vast expeditions, from the Tagus to Moscow, together with the Tsar Alexander's counter-offensive from Moscow to Paris, for the first time spanned the whole of Europe under a single strategic and political system. At the Congress of Vienna western and eastern Europe were for the first time consolidated into a united continent.

For the next sixty years the "Concert of Europe" was mainly pre-occupied with the settlement of the continental problems arising out of the heritage of the French Revolution and the dissolution of the Ottoman Empire. At the same time the administrative and economic consolidation of the European powers under the double impulse of the French and of the Industrial Revolutions radically transformed their dependence upon outside economic resources. On the one hand, the financial weakness which had been the outstanding characteristic of both

the great and the smaller European states was radically overcome. The subsidies so characteristic of seventeenth- and eighteenth-century warfare disappeared; henceforth even the smaller European powers were sufficiently developed to finance their armed forces normally out of their internal revenue. On the other hand, growing industrialisation inevitably increased their dependence upon bulk imports, such as raw materials and foodstuffs. But in the nineteenth century this new form of dependence upon overseas economic resources was still in its beginning and, moreover, was rendered less acute by the development of the railway net, making possible an emergency switch to imports from neighbouring European powers. Thus the wars of the mid-nineteenth century in Europe gave remarkably little indication of the new economic stranglehold of sea power which was even then in the making. Only under special conditions in overseas warfare, as in the blockade of the Confederacy in the Civil War, did sea power display all its former strength, largely in the form of the old-time financial rather than the new supply blockade.

Parallel with this development, the ability of sea power to intervene on the land with small combined forces likewise underwent a profound modification. The disproportionate effect of this type of operations in the days of classical sea power had depended largely upon the specific weaknesses and limitations of the land forces of those times; but these had in the meantime been completely overcome. In particular, such operations had depended upon the superior mobility of naval forces as compared with the primitive, slow-marching land forces of the time. The development of an efficient railway network all over Europe changed this condition radically to the detriment of sea power. In the second half of the century experienced commanders, like Moltke, felt able to deal with any landing within twenty-four hours.

Above and beyond all this, the development of land warfare had brought about a fundamental change in the relative balance of land and sea power which affected the latter simultaneously in both its economic and its military aspects. In the days of classical sea power the basic reason why it had been able to bring its influence to bear so successfully had been the extreme duration of the wars of that age. The limitations and the inconclusiveness of the campaigns on land resulted in a prolonged dragging out of conflicts, which gave full opportunity for the slowly working influence of sea power to make itself felt. The War of Spanish Succession lasted no less than twelve years, that of the Austrian Succession nine, the Seven Years War and the War of American Independence each seven. But the revolution in land warfare started by the French Revolution and completed by Napoleon, by increasing the speed, range, and effect of campaigns beyond anything previously thought of, made land campaigns both conclusive and swift. None of

Napoleon's major wars lasted more than about a year; most of them were decided within a few months. Since, however, they followed each other in such rapid succession and because, with a single brief interruption, Great Britain was continuously at war with Napoleon, the slow action of British sea power nevertheless found full time to assert itself. The wars of the middle of the nineteenth century, however, such as the Franco-Austrian, German-Danish, Russo-Austrian, and Franco-German, were all conflicts of limited intensity and scale and were brought to so rapid a conclusion by the new decisive strategy introduced by Napoleon that sea power, most clearly in the last case, no longer had the time to interfere effectively.

Under the combined impact of these various tendencies the third and central factor of the tripartite system of balance of land and sea power—British sea power—likewise underwent a series of profound modifications. In the first instance, the consolidation of both the new states in the Americas and the European powers had in general begun to reduce her influence of sea over land power. Secondly, with the loss of Britain's financial stranglehold the ability to make wars profitable instead of costly disappeared for ever. Above all, however, the partition and opening up of most of the remaining overseas territories, in which Great Britain was the primary beneficiary, proved to be at the same time an asset and a liability. On the one hand the extension of her possessions into a world-wide empire gave her a globe-encircling network of actual or potential naval bases; on the other it saddled her with a defensive problem which was to become increasingly difficult of solution.

The greatest strength of British sea power in its classical period had lain in the fact that it was able to compress all its manifold offensive and defensive functions into a single task of relatively limited dimensions, the establishment of the "command" of the Narrow Seas of Western Europe. By establishing her control over the other naval powers along the western seaboard of Europe Great Britain had been able to ensure simultaneously the security not only of the motherland but of all her widespread colonial possessions, intercepting at the source any possible enemy attack upon her, which at that time could come only across the sea.

Now that her empire had expanded over vast tracts both of Africa and Asia, the outward thrusts of France in North Africa, of Russia all along the line from the Straits to the Far East, and of Germany along the line of the Bagdad Railway threatened her with a series of overland attacks which she was incapable of intercepting and against which her sea power provided no defence. Hardly less perplexing was the simultaneous "distraction" of her sea power itself through the rise of new centres of naval power beyond the orbit of her "command" over the Narrow Seas: the appearance of a Russian fleet in the Black Sea and in the Far East

and the rapid rise of the naval power of the United States and of Japan. Her unique string of naval bases enabled her, indeed, to project her sea power to any area in the globe where it might be needed; but even with a greater force than she ever possessed she could no longer hope to meet and control all of them simultaneously—as she had been able, at the height of her strength, to dominate the combined strength of all other naval powers in the Narrow Seas of Western Europe.

The full significance of this perplexing development had not yet had time to reveal itself when the new menace of rapid rise of the German Navy, within striking distance of the British home base, cut it short for the time being. Faced with this new and most dangerous threat, the British statesmen and naval leaders decided to concentrate all their forces against it, freeing them from their commitments in other areas by a series of political alliances and understandings with France and Russia, Italy, Japan, and the United States. By thus temporarily relieving themselves from the perplexing multiplicity of their defensive commitments they were able to concentrate them once again, as in the days of classical sea power, in one undertaking of limited scope—domination of the German High Sea Fleet, thereby assuming security both for homeland and empire, the isolation of Germany's overseas possessions, and the security of Britain's sea communications—although the new weapon of the submarine harassed the latter to an infinitely higher degree than the commerce raiders of the old wars had ever been able to do.

A NEW BALANCE, 1900-1946

In a survey of the development of the pattern of land and sea power the First World War carries a Janus face. In its restriction of the military struggle once again in the European continent and its adjacent Narrow Seas it looks backwards to the classical age of British sea power. In its acceleration of the new economic and military trends of sea power, on the other hand, it marks a radical break with the classical pattern and the inauguration of a new one that was to be fully developed in the Second World War.

On the economic side, as the result of the tremendous intensification of industrial production and world-wide economic interdependence in the second half of the nineteenth century, the disappearance of sea power's one-time financial stranglehold upon the resources of the European powers was replaced by a new economic stranglehold over their imports of basic necessities such as foodstuffs and raw materials. So decisive was the impact of this new economic stranglehold in the First World War that it promptly brought about a reaction against it. True, the effort of all the major powers in the following decades to effect a

systematic reorganisation of their economies for total mobilisation and to secure maximum independence from outside supplies in every case fell short of the achievement of complete autarky. But the strengthening of their ability to resist all forms of economic dislocation and pressure was remarkable enough to make naval blockade in the Second World War—with the exception of the case of the Japanese Empire—a markedly less decisive instrument than in the first.

On the military side, in the meantime, sea power was beginning to expand its activities beyond anything it had previously been able to aim at. In its classical age, as we have seen, British sea power had held the key to the balance of power on the European continent by its political and financial influence. Militarily, however, its strictly limited resources had forced it to concentrate its main effort upon the acquisition of the “command” of the Narrow Seas and to restrict its direct intervention in the struggle on the Continent itself to smaller or greater diversionary operations “on the fringes.”

With the First World War this state of affairs underwent a radical change, which is reflected in the strategy of both of the major sea powers, Great Britain and the United States. In that conflict the inability of their continental allies to hold their own against the onslaught of the Central Powers, together with the decline in the diversionary effect of small amphibious operations, forced the Anglo-American powers to leave their traditional place on the side-lines and to utilise their sea power in order to project their full military strength directly into the decisive area of conflict. This shift of sea power from a position on the fringes to direct intervention in the crucial central issues, from an instrument of opportunism to the bearer of the decisive military operations themselves, culminated in the Second World War, when the expansion of the struggle from its limited origins to embrace virtually the entire globe, fused oceans and continents permanently into a single strategic chessboard. In this conflict, in which the all-surrounding and interpenetrating unity of the oceans for the first time revealed its full significance in relation to the isolated and divided continents, control of that universal medium of mass movement became the decisive card, the indispensable prerequisite of any world-wide combination.

Thus in global warfare, sea power had at last come into its own and achieved its full stature. Behind its shield the two Anglo-Saxon democracies were able to hold out, to mobilise their forces, and to plan and launch their counter-attacks at their own chosen times and places, to exploit the traditional advantages of combined operations on a global scale and with land and air forces of the largest magnitude.

Above all, their “command of the sea” enabled them, on the highest plane of over-all global strategy, to keep their two groups of opponents

apart, while concentrating their own efforts successively against first one and then the other. This they were able to do because the expansion of the struggle from Europe to the globe had left the greatest traditional asset of sea power, the division of the continental powers among themselves, unaffected, thus enabling them to hold their opponents apart by supporting against them the triple barrier of Russia, India, and China.

THE STRATEGIC POSITION AFTER WORLD WAR II

It is against the background of this whole gradual evolution of the balance of land and sea power that the wholly novel situation that has arisen since the end of the Second World War must be viewed in order to be properly understood and evaluated.

Through the collapse of Germany and Japan, the balance among the land powers—which, since the days of the Renaissance and of the great discoveries, has formed the one essential element in the pattern of land and sea power—has been one-sidedly overthrown and supplanted by “monolithic” predominance of Russia not merely over the whole of continental Europe, but of the continental Old World. Against the tremendous concentration of central position, vast man-power, natural and industrial resources, ideological unity, and determined leadership, neither India nor China are for the time being in a position to constitute anything like effective counterweights. The same is even more true of France, the only other considerable power left on the continent.

The result is that sea power has found itself drawn into the continental balance as never before in history. Whereas Britain in her classical period was able to maintain the balance between the conflicting representatives of land power from the outside and whereas in the two World Wars the two sea powers were forced to supplement it by direct intervention in the continental struggle, they are now in a position where they are forced to provide the major effort in upholding it against the concentrated weight of land power in the hands of Russia.

Such a balance as this must necessarily remain highly precarious. The reduction of the main component powers from a group of some eight to ten to a bare three has almost completely destroyed the permutability of combinations and counter-combinations upon which depends the functioning—and in particular the flexibility—of an effective system of balance. The unfortunate result has been a rigidity in the international situation which in every major disagreement has led inevitably to a head-on clash between the Soviet Union on the one side and the two Anglo-Saxon democracies on the other—a state of affairs which in the long run must prove as unfavourable to any *détente* of minds as could possibly be conceivable.

This psychologically extremely difficult situation is further aggravated by the fact that between the two groups there is no broad middle ground on which to make each other concessions. Perhaps the most disturbing material factor in the situation is precisely the fact that the two groups are so closely arrayed against each other all across the Old World that any appreciable advance of one or the other side threatens to overthrow, decisively and irrevocably, the strategic security of the other. At the same time there are also no longer any powers outside of the initial balance upon which one side or the other could fall back, as Britain did upon the United States and the Axis upon Japan in the Second World War. With the entire power potential of the globe already included in the original balance there is no longer any outer fringe not yet drawn into it nor any leeway left for concessions—any extension of force in depth to fall back upon in order to advance again later.

From the point of view of sea power the most disturbing aspect of this unprecedentedly tense strategic alignment is the fact that it repeats on the widest possible scale the most serious threat which sea power has had to face in its age-long tug-of-war with land power—the threat of being defeated by land power not on its own element, the sea, but simply by its systematic exclusion from the continent. The apprehension that a land power which had first made itself master of a united continent would then be able to overwhelm Great Britain by concentrated weight of naval power was the deepest motive at the bottom of the traditional British policy of the balance of power. On the economic side Philip II of Spain as early as the sixteenth century first toyed with the idea of ruining Britain by excluding her from the continental markets. Silhouette in 1739 and Choiseul in 1762 took it up again in France. The elder Pitt and Newcastle both feared it. Napoleon combined both menaces in the powerful fleets which he continued to build in his ports long after Trafalgar, as well as in his Continental System, which miscarried only because of the inconsistency of his measures and the unexpected success of the British in opening up new markets overseas to replace those closed to them on the Continent. While this *financial* threat disappeared in the course of the nineteenth century, the *military* menace increased with the expansion of the great European Powers over-land, the increasing mobility of land forces, and above all the coming of air power, until in the years before the Second World War a powerful German-Italian-French school of military thought openly proclaimed the exclusion of sea power not only from the land, but even from the adjacent coastal waters within reach of land-based aircraft. Ideas of this kind undoubtedly exercised a considerable influence upon Hitler's

plans for a conflict with Great Britain,* culminating in his attempt "to unite under the same domination both Russia and Europe, in order the better to overcome, by the conquest of the land, the intangible and invincible empire of the sea."†

To-day the U.S.S.R., having virtually achieved what Hitler attempted in vain, stands on the threshold of realising that centuries-old dreams of land power which has persisted from Philip II to Napoleon and Adolf Hitler. From her position astride the great Eurasiatic Plain, Russia could by a few relatively short advances in Central Europe, in the Middle East, and possibly in North China make herself for all practical purposes mistress of the continental block of the Old World north of the great desert belt. This would not mean in itself that the sea powers would simply be constrained to bow without hope before her domination; but it would mean that in any conflict, whether with the traditional weapons or with the new instruments of the atomic age, they would find themselves so heavily outmatched in man-power, in resources, and above all in territory that their chances of a successful resistance would be precarious indeed.

THE EFFECT OF NEW WEAPONS

The establishment of this new world-wide, balance of land and sea power, in which the long process of the strategic unification of the globe has finally culminated in our own days, constitutes thus the outstanding event determining the whole political and military development of our world. Yet, despite the over-abundant lip-service to the abstract notion of "one world," the concrete significance of this momentous event for the shaping of our political and military world structure has been strangely beclouded, and for the time being almost obliterated, by the conjunction of two other simultaneous developments.

On the one hand, the great advance toward better understanding and co-operation between the nations of the world in the establishment of the United Nations has, unfortunately, entailed the inevitable drawback that by being forced to presuppose a harmony which does not as yet exist it has fostered a habit of political make-believe in which the great tensions which are the dominating factors of our age have not indeed disappeared, but are only occasionally admitted. Much of the discussion of the new peace machinery of the United Nations has been vitiated by the tendency to ignore such real conflicts and to cling—in public—to the

*Conference of May 3, 1939: Memorandum on War in the West of October 9, 1939.

†Grigore Gafencu, *Prelude to the Russian Campaign* (London: Frederick Muller, Ltd., 1945), p. 314.

pretence of a non-existent harmony endangered by a purely hypothetical “aggressor”; with the result that nobody is fooled, but that the real picture and its issues are seriously distorted by the purely fictitious abstraction of the frame of reference.

On the other hand, to this *theoretical* abstractness of the *political* aspect of the problem of world security must be added the *technological* abstractness of the *military* debate aroused by the atomic bomb. This debate, which for the most part has completely disregarded the broad global background to which the preceding chapters have sought to redirect attention, has thus far tended to concentrate one-sidedly upon a purely abstract picture of the probable nature and course of a future war, derived exclusively from the physical properties of the bomb itself.

The convergence of these two wholly one-sided abstractions has resulted in a conception of future atomic (rather than global) warfare whose main features are as yet purely hypothetical, but which has been accepted with such unquestioning fervour that it has come to assume the character almost of an *idée fixe*.

The core of this almost universally accepted conception of atomic warfare embraces three closely interrelated “dogmas”: first, that any atomic war will inevitably begin—and practically end—with a surprise knock-out blow by massed atomic weapons, an “atomic Pearl Harbor”; second, that atomic war will be almost unbelievably short, a “superblitz” to be decided in a few hours or, at the most, a few days or weeks; third, that it will be waged and decided essentially if not exclusively by atomic weapons or even more sinister new forms of warfare.

This idea of eliminating at one fell blow the entire offensive and defensive power of a prospective victim or opponent may appear absolutely compelling if viewed from the point of view of hypothetical “aggressor” guided exclusively by abstract inferences derived from the physical characteristics of the bomb itself; but it becomes markedly more questionable—not to say dangerous—the moment an attempt is made to apply it to the concrete realities of the present world situation.

First and foremost, it one-sidedly focuses all apprehensions of a possible Russian aggression—since the sea powers by no stretch of the imagination could possibly be conceived as conspiring for an atomic surprise attack upon anybody, not even Russia—upon such an atomic surprise attack and thus completely obscures the far more probable and, in the long run, far greater danger of a successful Russian infiltration into the crucial key areas in the global balance of power. Far more probable, because such infiltration tactics would be infinitely more in accord with the whole strategic position, peculiar strength, and imperialistic tradition of the Russians; far more dangerous, because being a political rather than a military form of action it would be capable of infinite gradations, even

if necessary of complete temporary suspension without undue loss of prestige, until such time as a relaxation of watchfulness on the part of the Western democracies gave it the chance to succeed and thereby to decide in advance the issue of a final atomic showdown.

Secondly, in its purely abstract, rationalistic approach, this theory tends completely to forget how desperate and improbable a gamble would be implied in even the best-conceived and most elaborately prepared "absolute declaration of war": a gamble certain to provoke moral repercussions of almost incalculable dimensions for the sake of a military success which would, at best, be highly questionable. True, the Japanese militarists took such a chance at Pearl Harbor, because the military success they were aiming at was strictly limited; because in their ill-advised contempt for the American character they discounted the moral repercussions; and, in the last resort, because with the oil embargo rapidly diminishing their ability to act at all, they felt they had no other choice. But none of these reasons would hold good for the Russians in such an incomparably greater gamble. It is difficult to conceive them as ever manoeuvring themselves into a situation in which they would similarly be constrained to stake everything upon one throw of the dice. The military success which they would require, moreover, would have to be not merely total and immediate, but as absolutely certain as anything could humanly be; while their entire training and ideological orientation would certainly lead them to attach the fullest imaginable weight to the avalanche of moral condemnation which so flagrant an act of aggression would be certain to produce.

So susceptible, in fact, have the Russians already shown themselves to the growing pressure of world opinion that it looks at this moment as if the international system of control of atomic armaments to be established under the auspices of the United Nations—while it might perhaps not of itself eliminate war, nor even the eventual use of atomic weapons, should war unfortunately break out again—may still be sufficiently effective to wipe out at a single stroke precisely those most staggering features of atomic warfare upon which the current debate has most unquestioningly tended to base itself. For, while it would perhaps be unwise to assume that such control, however well organised, would be able to prevent *any* contravention, one would imagine that it should at least be able completely to suppress any clandestine *mass* production of atomic weapons. But without mass piles of atomic bombs, as has rightly been pointed out, no atomic Pearl Harbor would be possible. The terrible gamble which it would represent at the best would become wholly unconscionable if the aggressor did not at least have at his disposal not merely hundreds but thousands of these most dreadful instruments of destruction—in order to be able not merely to swamp all defences, but to

continue to follow up the initial crippling blow for a period whose length it would be impossible to define but which would certainly have to extend beyond anything so far conceived of in the discussion of atomic warfare.

For, like the dogma of the inevitable and decisive effect of an initial atomic surprise attack, the second closely related dogma of the atomic creed, the extreme shortness of a future conflict, reveals itself upon closer scrutiny as another purely abstract consideration drawn from the physical properties of the bomb without reference to the broad aspects of the concrete world situation. For if, as we believe probable, that initial surprise attack should after all fail to materialise, or, materialising, fail to produce the decisive effect ascribed to it, the entire situation would seem to tend in exactly the opposite direction—toward a conflict not merely fierce but prolonged beyond anything mankind has known since the Thirty Years War. On the one hand, the fundamental character of the issues involved—since in the present state of world conscience only fundamental issues would be able to bring about and permit such a conflict—together with the certainty that any defeat would be absolute and irrevocable, would endow it with a moral intensity approaching the “absolute character” of the life-and-death struggles between primitive tribes. On the other, the widespread use of long-range missiles, whether with or without atomic warheads, would inevitably tend to destroy and disrupt the apparatus of industrial production and transportation to such an extent as to make any effort to bring about a decision slow and difficult to an as yet inconceivable degree, to say nothing of the appalling areas and distances involved.

Yet so hypnotic has been the emotional appeal of the orthodox doctrine of atomic war that even those who are inclined to deny its basic premises concerning the decisive effect of an initial knock-out attempt—or at least to insist that it could be prevented from becoming so by the necessary precautions—can so little free themselves from the larger concept that they continue to think exclusively in terms of an incredibly short war waged and decided by essentially atomic weapons. Yet if, as this school maintains, a Russian atomic mass attack (and even more a surprise attack) against the uniquely concentrated targets presented by the war potential of the United States could be prevented by appropriate counter-measures from achieving a decisive effect—or even seriously impairing the ability to launch retaliatory atomic counter-attacks—what possible chances to achieve a decision, and even more a quick decision, would these counter-attacks have against so incomparably more dispersed, concealed, and inaccessible targets as the Russian war industries and transportation? Here we patiently approach the domain of the supra-natural: *credo quia absurdum*.

The dangerous delusion in this line of argument has been clearly exposed at the very outset of the atomic debate by a man whose opinion in all military matters should weigh most heavily not merely in his own country but the world over: "The only effective defence a nation can now maintain," wrote General Marshall in that portion of his final report which can aptly be described as his military testament in matters of atomic warfare,

is the power of attack. . . . The classic proof of this came in the Battle of Britain. Even with the magnificent fighter defence of the Royal Air Force, even with the incredible efficiency of the fire of thousands of anti-aircraft guns controlled and aimed by unerring electronic instruments, the British Islands remained under the fire of the German enemy until the final stages of the war.

Not until the American and British armies crossed the Channel and seized control of the enemy's territory was the hail of rockets lifted from England. Not until we had physical possession of the launching sites and the factories that produced the V-weapons did these attacks cease.

Such is the pattern of war in the twentieth century. If this nation is ever again at war suffering, as Britain did in this war, the disastrous attacks of rocket propelled weapons with explosive power like our own atomic bomb, it will bleed and suffer, perhaps to the point of annihilation, *unless we move armies of men into the enemy's bases of operation and seize the sites from which he launches his attacks.**

THE FUNCTION OF SEA POWER UNCHANGED

Thus from the shouting and the turmoil of the atomic discussion General Marshall's pertinent reminder leads us back to the global balance of land and sea power as the ultimate determinant of our present political and military situation. Just as defence on a purely national or even imperial scale no longer suffices for the preservation of peace and has to be expanded into the maintenance of the global balance of power within the legal framework of the United Nations; so, in the unfortunate case of a collapse of that balance and the outbreak of another world-wide conflict, mere defence against an atomic attack, or mere retaliation and counter-attack with atomic and other missiles, would be

*George C. Marshall, "Biennial Report of the Chief of Staff of the United States Army to the Secretary of War, July 1, 1943 to June 30, 1945" in *The War Reports of General of the Army George C. Marshall, Chief of Staff, General of the Army H.H. Arnold, Commanding General, Army Air Forces, Fleet Admiral Ernest J. King, Commander-in-Chief, United States Fleet and Chief of Naval Operations* (Philadelphia: Lippincott, 1947), p. 151.

wholly insufficient to eradicate the menace and clinch the issue unless followed up with the only ultimately decisive form of warfare—the defeat of the enemy's ground forces and the occupation of his territory.

That means, however, that even in atomic warfare global strategy must continue to rest ultimately upon sea power, which alone is capable of assuring the transportation across the broad oceans of the masses of men and of goods which are needed, if the military balance of power is to be upheld and decisive victory ultimately secured. That basic role, air transport as yet appears unable to take over in the foreseeable future, however amazing and gratifying its recent spectacular development; although we may rightly expect it to assume a large, possibly the predominant share of the transportation effort within the different theatres of war. In the same sense, the basic effort towards the breakdown of the enemy's powers of resistance will have to rest with the combination of blows of mass armies and air forces, while the promising new instrument of air-borne attack will constitute a trump card in highly concentrated operations against key enemy positions.

That, however, confronts the sea powers with a difficulty which it would be futile to deny and which has never been put more clearly than by Mr. Winston Churchill at the most critical period of the recent struggle. "The whole power of the United States, to manifest itself in this war," he pointed out in the House of Commons on October 31, 1942, "depends upon the power to move ships across the sea. Their mighty power is restricted; it is restricted by those very oceans which have protected them. The oceans, which were their shield, have now become a bar, a prison-house, through which they are struggling to bring armies, fleets, and air forces to bear upon the great common problems we have to face." The sea powers, in other words, were forced by their very nature and position to seek to project their strength across the always infinitely more vulnerable sea lanes against an enemy able to operate not merely on interior lanes but along the incomparably quicker and safer lines of land communication.

This same situation would, in a possible conflict between Old and New Worlds, again prove the outstanding strategic problem of the sea powers—a problem whose solution would call for all the skill and ingenuity of their navies. Not only would they have to cope at sea with the new and incomparably more dangerous instruments of submarine attack which had already been developed at the end of the Second World War, but had not yet had time to come into operation. In addition the development of long-range missiles would confront them with an even more formidable threat in precisely those key places where hitherto they could count upon at least a measure of security: the points of embarkation and debarkation. It is obvious that these fixed,

concentrated objectives would prove incomparably more attractive and lucrative targets for long-range missile attack than widely dispersed fleets or convoys moving upon the high seas. The more so if we take into account what has been perhaps the most striking lesson of the Bikini experiments: the fact that the most dangerous property of atomic weapons is neither their blast effect nor their heat, but their contamination of the whole surrounding area with deadly radio-active particles, which show a particular propensity to cling to sea water. Thus an enemy who wished to deny us the use of our great ports would in all likelihood be able to do so effectively merely by sending out at regular intervals atomic missiles which would merely have to fall within the general water area in order to create the most appalling problems of decontamination.

Thus it would seem that the most urgent tasks of all, if the sea forces of the United States and of the British Empire are to fulfill their cardinal function of projecting the might of the New or Overseas World in order to maintain and redress the balance of the Old, would be, first, the development and preparation of a vast system of mobile roadsteads, together with the corresponding preparation of a large number of emergency railheads, etc., along the coasts between which traffic could be switched as necessary to avoid presenting the enemy with a permanent, stationary target; and, second, the equipment of all merchantmen, and not merely warships with devices capable of preventing their contamination with radioactive water.

While this cardinal task of projecting the armed might of the Overseas World into the Old thus forms the ultimate and logical conclusion of the long evolution of sea power which we have endeavoured to trace, the economic pressure which loomed so large at diverse periods in that evolution is likely to play a steadily diminishing role in the future. Apart from all changes in technological and economic conditions, the blockade of a continental block stretching from the Atlantic to the Pacific is no longer either a readily feasible or a worthwhile proposition.

On the other hand, the functions of sea power in the conduct of the decisive military operations are definitely not going to exhaust themselves in that cardinal task of basic transport and maintenance alone. As the Second World War has shown, the expansion of the strategic scene over virtually the entire surface of the globe has created wholly new opportunities for sea power to intervene on an unprecedented scale, directly with its own naval weapons, in the crucial strategic issues themselves. The role of sea power in strangling the Axis lines of communication across the Mediterranean from 1941 to 1943 is an outstanding example of what sea power might again be able to effect in that same vital water barrier between Gibraltar and Aden if the necessity

should at any time arise of preventing a European surge across it into Africa. Nor are other areas lacking in various parts of the globe in which a powerful sea-air concentration might be able to exercise quite disproportional effects both in checking a first most dangerous onslaught and in counter-attack.

CONCLUSION

Thus systematic analysis of the possible and probable functions of sea power in a future global conflict in no way supports the overhasty conclusion that it has become completely obsolete or, at the best, after its brilliant "come-back" in the Second World War, has now passed the zenith of its power and significance and is rapidly proceeding on the downward slope. If, as I have tried to show, the global balance of power, and with it the continued peace and prosperity of the world, depends ultimately upon the ability of the sea powers to uphold their end against the rising pressure of an unprecedented concentration of land force; and if, in the last resort their ability to hold their own in this gigantic tug-of-war depends in its turn upon their capacity to project their armed might across the intervening seas, then it is not too much to say that, as far as we can foresee at this moment, sea power more than ever before holds the key to the balance, and with it the peace of the world.

